

THE CITY OF NEW YORK

DEPARTMENT OF STREET CLEANING

ANNUAL REPORT

1915

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ANNUAL REPORT
OF
Department of Street Cleaning
CITY OF NEW YORK

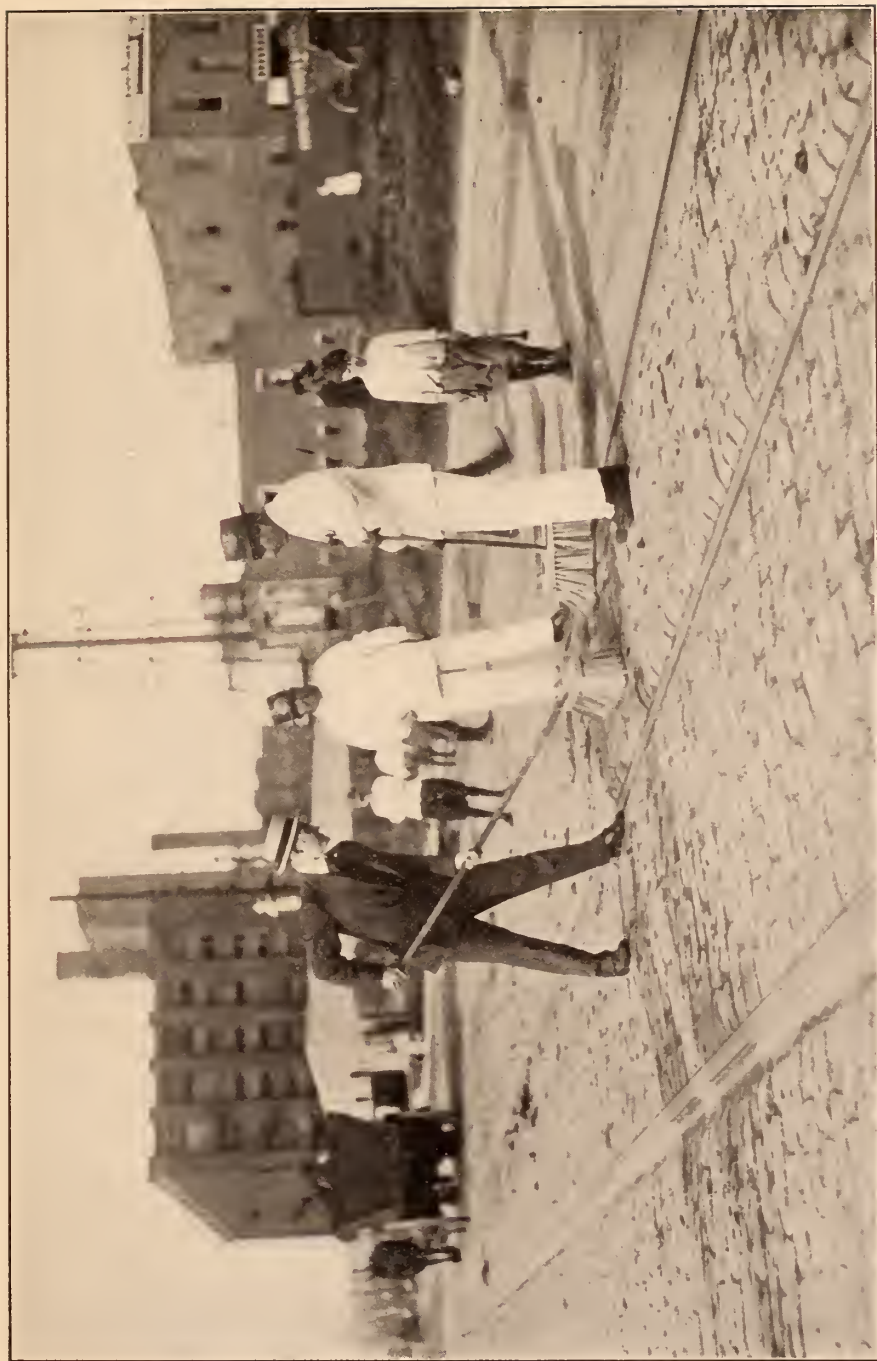


J. T. FETHERSTON, Commissioner

1915

OFFICE
76
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1915





THE COMMISSIONER SHOWING A "WHITE WING" CORRECT WAY OF HOLDING AND MANIPULATING A BROOM.

Department of Street Cleaning

CITY OF NEW YORK.

July 14, 1916.

Hon. JOHN PURROY MITCHEL,

Mayor,

The City of New York.

SIR:—I respectfully transmit herewith the annual report of the Department of Street Cleaning for the year ending December 31, 1915, pursuant to Section 1544 of the Revised City Charter.

The year just closed has written into the history of the Department of Street Cleaning a chapter of exceptional interest, and of considerable importance to the future development of the Department's activities. During the year many important changes were made in the manner of exercising the functions of the Department. In several instances entirely new methods were worked out and special equipment was devised to make them of practical use in the service.

A considerable increase in the area of streets cleaned and in the amount of waste matter collected by the Department during 1915, will be observed in the comparative statistics presented in the following pages. The cost of administration was, however, reduced. In the item of borough administration there was a decrease of \$67,144.97 due chiefly to reduction in the number of supervisory officers and to other improvements in organization. (See Appendix D.)

The cost of operating the Department would have been less for 1915, than for any similar period in recent years, if the prices of forage and other supplies had not increased to abnormally high figures, because of the European War.

The total expenditures of the Department were \$1,245,181.24 less in 1915 than in 1914. These figures, however, include the cost of snow removal in both years. Taking the expense of snow removal separately, it should be said that the lessened cost was due to the two prime factors of generally favorable weather conditions and improved plans and methods of performing the work. In that portion of this report which is devoted to "Snow Removal" a more detailed account and closer analysis of this branch of the Department's labors will be found.

Summary of Improvements.

A brief summary of the more important changes and additions made in the Department's methods and equipment during 1915 follows:

Flushing of Streets.—The flushing of streets by the use of hose was carefully studied in co-operation with engineers of the Water Department and, as a result, the methods employed were markedly improved, and along scientific lines. The amount of flushing done by the Department has been increased 30 per cent. The hose was formerly folded on a street sweeper's can carrier, or dragged from one hydrant to another. Folding the hose on the can carrier each time a shift was made and dragging the hose along the streets was highly destructive and costly. Hose reels of special design are now in use and the hose is wound on these reels at each shift between the hydrants, thus greatly reducing the wear. The manner of handling the hose and the nozzle has also been improved, thereby saving time and giving more effective results. A standard practice has been installed and the men are carefully drilled in the best method of performing the work.

New Relay Station.—A garbage relay station has been established at Stable S, located at 183d Street and Amsterdam Avenue, Manhattan, from which a tractor and trailer conveys the garbage to 139th Street dump, on the Harlem River. This is a saving over the old method, when each cart traveled several miles to the garbage dump. The population in upper Manhattan has been increasing very rapidly. The output of refuse has also had a corresponding increase. To meet this changed condition a stable was leased at 206th Street on the Harlem River. The stable in this neighborhood saves much time in the traveling of the horses, as the distance to the work is now much shorter.

Covered Carts.—The Department has proved that it is practical to cover 1,800 out of 2,000 of its carts, and now the Department of Health is requiring private cartmen to cover their carts with covers of a similar design.

Model District.—In the Model District the tractors and trailers are making the regular collections and the refuse material is being dumped onto scows by traveling electric derricks. During the period that the streets were covered with snow and ice, when the collections were made very slowly with horses and carts in other districts, the tractors and trailers continued their work as usual, not only cleaning the Model District, but also helping in the cleaning of other districts. A commodious convenient structure on the pier at 19th Street, East River, for the housing and repairing of the tractors and trailers is in course of erection.

Department messengers are now using automobiles in the collection and delivery of mail and small parcels, and this new method of handling such material is both rapid and economical.

Disposal of Refuse.—The disposal of refuse collected by the Department during the year was by contract. Under the present contract, operations began January 2, 1914, and will continue for a period of three (3) years, with the right of renewal for another period of two (2) years. The three (3) year period for all contracts will end on January 1, 1917. New specifications have been prepared and bids will be received for the disposal of refuse for a period of five (5) years. With the information at hand it can be readily determined whether the renewal of the present contracts or the acceptance of new proposals will be more advantageous to the City. The new specifications have been carefully prepared, with a view to improvements in sanitary conditions.

Covered Fireproof Dumps.—A covered, fireproof dump has been erected at 77th Street on the North River, at a cost of \$38,716.00. Another semi-fireproof covered dump has been constructed at 72d Street, on the East River, at a cost of \$21,329.00. The covered dumps are of artistic design and prevent in great measure the escape of dust and these features make them much more desirable than the old-style open dumps.

Funds to the amount of \$3,000.00 were procured for an extension to the 139th Street dump on the Harlem River. Plans and specifications have been prepared and the Department is now advertising for bids for the work.

A floating dump for temporary use has been placed at 206th Street on the Harlem River, Manhattan, pending the erection of a new dump on Sherman Creek. The sum of \$23,500.00 has been allowed for constructing the new dump.

Electric lights have been installed at all the waterfront dumps of Manhattan and the use of all flame lights has been discontinued.

There has been installed at each of the four (4) waterfront dumps of Manhattan, a fire line with hose connection. Recently funds to the amount of \$32,738.00 were procured for a combined hose and sprinkler fire protection system for all City dumps, and plans and specifications for carrying out this work are now being prepared.

Materials Collected.—Following are the (cart) loads of refuse collected by the Department during the year 1915:

| | |
|---------------------------------|------------|
| Ashes and Street Sweepings..... | 2,734,165½ |
| Rubbish..... | 526,919½ |
| Garbage..... | 438,899½ |
| Total..... | 3,699,983½ |

A loaded cart contains one and one-half (1½) cubic yards. Appendix C presents these statistics in detailed and classified form.

Snow Work.—Special treatment of snow work, given in another part of this report, presents in graphic manner evidence of the advantages which have accrued to the City by the present administration's improved methods of handling snow. The addition of what is called the "Snow Fighting" force

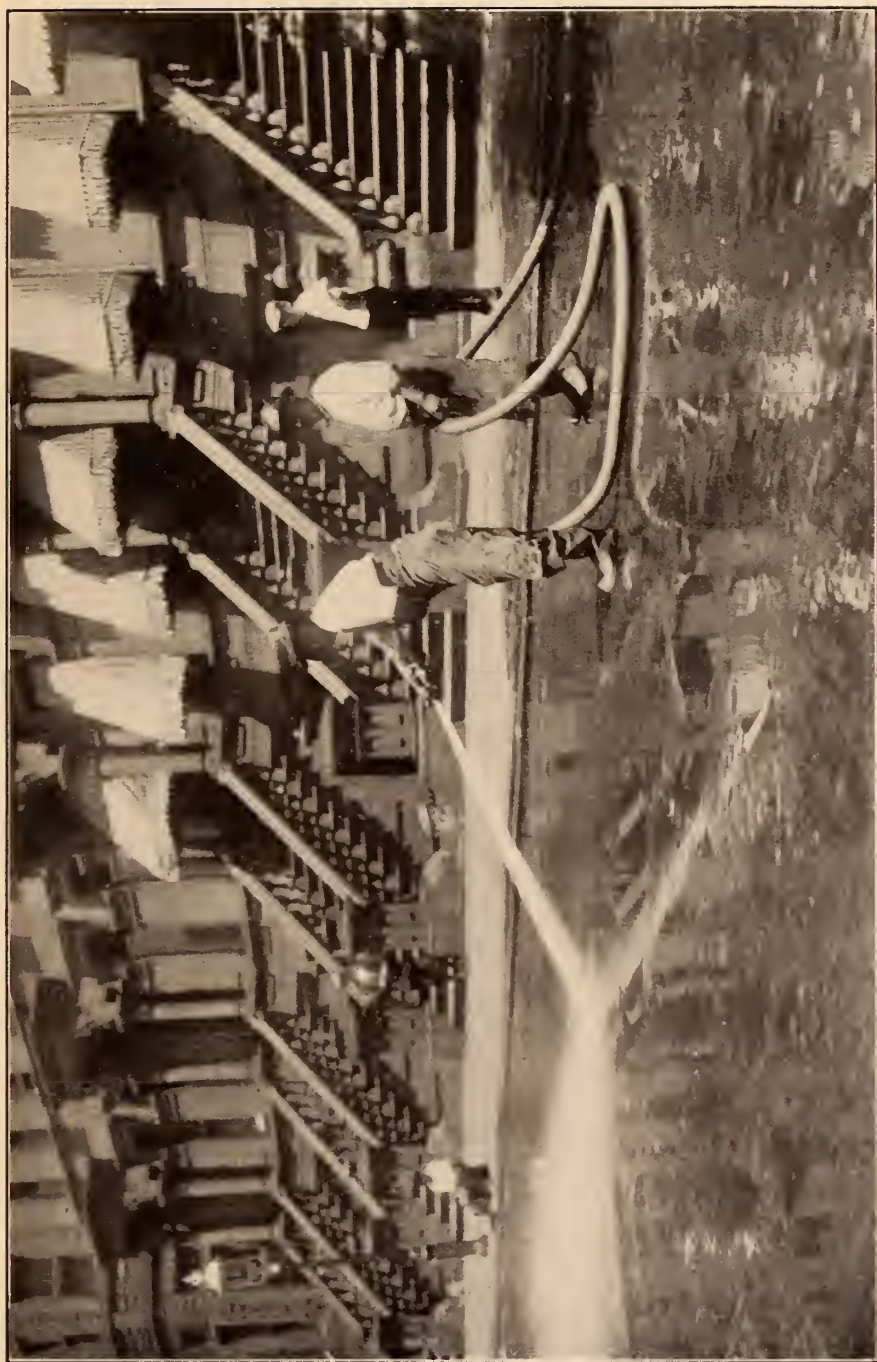
to contract removal by trucks over a large part of the area scheduled for snow removal, the extended use of motor-driven snow plows and the system of starting work on snow with a large force of laborers during the storm, instead of waiting until it ceases, are the chief features of the improved method which resulted in the elimination of delays and heavy expenses to traffic interests under the old system of truck removal, which alone was the practice previous to the advent of the present administration.

Appendices.—Appendix B gives in detail the horse statistics of the Department, including important items in the records of the veterinary division. The report shows increased efficiency of the horses, due principally to care and consideration given the animals by those to whose charge they are committed.

A detailed report of the pension fund will be found in Appendix E. It shows a considerable increase in the reserve and a generally satisfactory condition of the fund. It may be well to say that increased watchfulness over the physical condition of the men, which will be made possible by reorganization of the medical division of the Department, in all probability will advantageously affect the operation of the pension fund in the near future.

Respectfully submitted,

J. T. FETHERSTON,
Commissioner of Street Cleaning.



HAND FLUSHING WITH WATER AT HYDRANT PRESSURE, USING HOSE OF 2½ INCHES DIAMETER.

OFFICERS OF THE DEPARTMENT

1915

| | |
|---|-----------------------|
| Commissioner..... | J. T. Fetherston |
| Deputy Commissioner (Main Office)..... | A. B. Clark |
| “ “ (Manhattan)..... | Charles B. Largy |
| “ “ (The Bronx)..... | A. E. Kalbach |
| “ “ (Brooklyn)..... | Charles Mauro |
| Secretary..... | A. B. MacStay |
| General Superintendent..... | A. A. Taylor |
| Assistant Superintendent..... | James W. Asip |
| Supt. Final Disposition..... | Fred L. Stearns |
| Borough Superintendent (The Bronx)..... | C. S. Dunphe |
| “ “ (Brooklyn)..... | Bart F. Dwyer |
| Examining Engineer..... | Raymond B. Carver |
| Chief Clerk..... | John J. O'Brien |
| Law Clerk..... | Henry N. Steinert |
| Physician in Charge..... | S. I. Rainforth, M.D. |
| Veterinarian in Charge..... | Daniel J. Mangan |

DETAILED REPORT

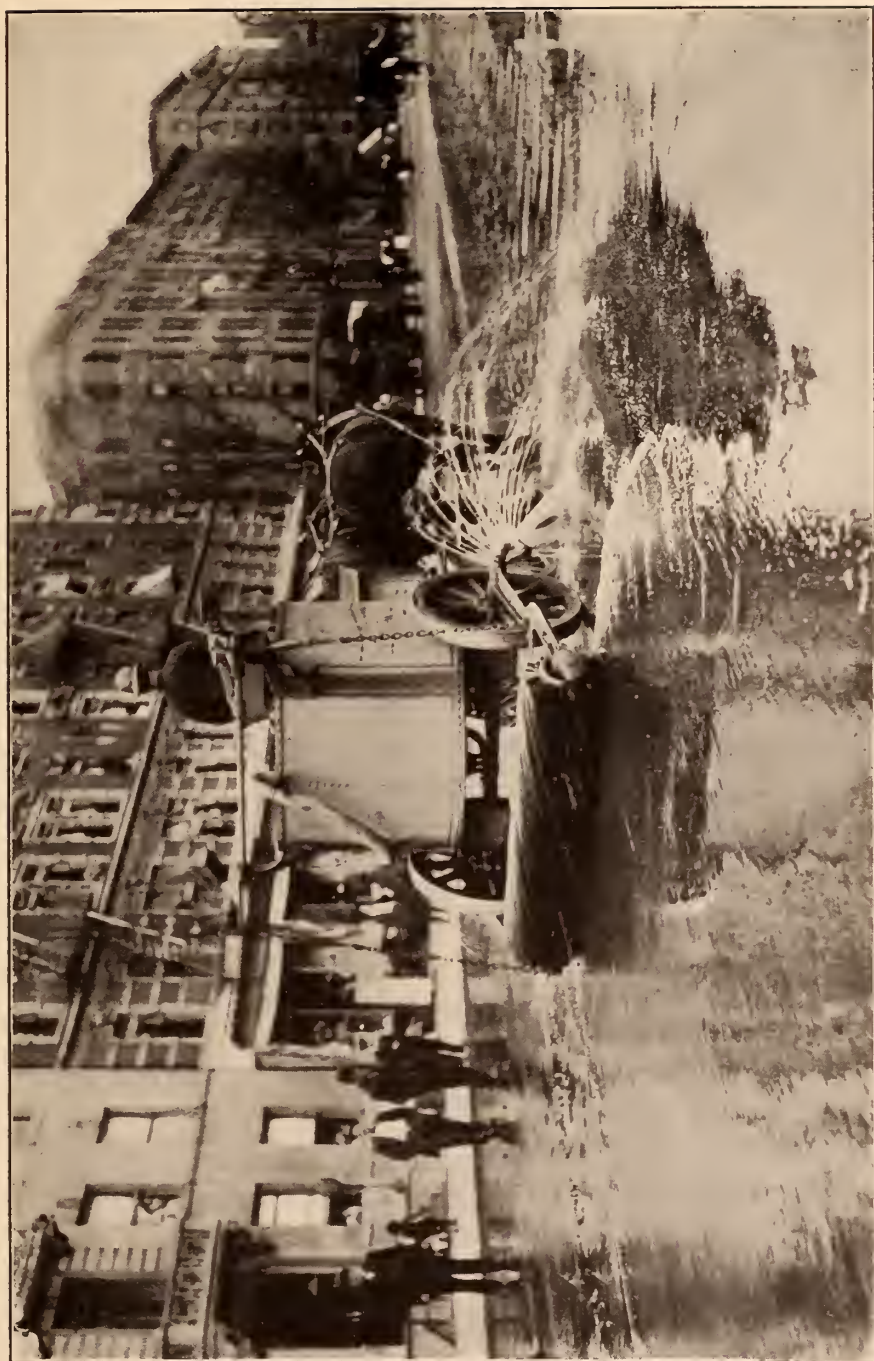
Physical Problems Confronting the Department

There are over five million persons served by the New York Department of Street Cleaning. The area in the three boroughs—Manhattan, The Bronx and Brooklyn—under the control of the Department is 140.2 square miles. The maximum density of population per acre is 696.7 (lower East Side of Manhattan). The average density is 57.8. There are 1,509.4 miles of paved streets under the charge of the Department. In the three boroughs there are 296,754 buildings, an increase of 4,362 during the year. Of automobiles—pleasure and commercial—there are 62,905; horses, 101,723, exclusive of City-owned horses, of which there are, in the three boroughs, 3,890. The increase in the number of automobiles over the figures for 1914 has been 33 per cent., the decrease in the number of horses 1.4 per cent.

These statistics, taken in conjunction with others, given in the tables shown herein, represent the largest problem of the kind under one jurisdiction in the world. When one takes into consideration the tremendous impediments of disturbed pavements, due to subway extension and building construction, coupled with the physical statistics noted above, some idea of the magnitude of the task before the Department of Street Cleaning may be realized. Table No. 1 gives the statistics in detail.

TABLE NO. 1.
Physical Statistics—1915.

| Item. | Manhattan. | The Bronx. | Brooklyn. | Total. |
|--|------------|------------|-----------|-----------|
| Population..... | 2,585,469 | 552,538 | 1,881,063 | 5,018,870 |
| Area in square miles..... | 21.93 | 40.65 | 77.62 | 140.20 |
| Area in acres..... | 14,038 | 26,017 | 49,680 | 89,735 |
| Maximum density of population per acre..... | 696.7 | 63.0 | 278.7 | ..... |
| Minimum density of population per acre..... | 11.5 | 7.3 | 3.2 | ..... |
| Average density of population per acre..... | 176.3 | 16.2 | 41.9 | 57.8 |
| Miles of streets..... | 478 | 449.5 | 1,237 | 2,162.5 |
| Miles of paved streets..... | 458 | 189.4 | 864 | 1,509.4 |
| Total buildings..... | 85,400 | 36,030 | 175,324 | 296,754 |
| Number of horses..... | 51,483 | 10,495 | 39,745 | 101,723 |
| Number of stables..... | 2,115 | 1,093 | 4,807 | 8,015 |
| Number of commercial motor vehicles..... | 8,421 | 591 | 2,828 | 11,840 |
| Number of passenger automobiles..... | 30,553 | 2,410 | 18,102 | 51,065 |



WASHING AND SCRUBBING PAVEMENT WITH HORSE-DRAWN SQUEEGEE MACHINE.



THE OLD DESTRUCTIVE METHOD OF CARRYING HOSE, DOUBLED UP ON A CAN CARRIER.

The Municipal Housekeeper

The Department of Street Cleaning is frequently referred to as "The Municipal Housekeeper." Accepting this characterization as warranted by the duties of the Department, an interesting and somewhat startling deduction may be drawn. The ordinary housekeeper's duties include cleaning up after an average family of five persons, in addition, of course, to her other domestic obligations. In many households there is, besides the daily picking up and straightening around, one day each week set aside for a general house cleaning.

Now, viewing each of the 2,724 regular street sweepers ("White Wings") as a servant of the "Municipal Housekeeper," or as one of the City's housekeepers, charged with keeping clean a defined area, how do his duties compare with the cleaning responsibilities of the mistress of the average domicile? Taking as a basis the figures in our table of physical statistics a simple calculation in short division gives us the answer. The "White Wing" on the average must clean up after 1,805 persons, 37 horses and 23 automobiles, not once each week, nor once a day, but many times each day on the route for which he is responsible.

Domestic and Business Habitations

The data that show the character of the buildings in which the people of New York live, work or transact commercial or professional businesses are of special importance when the problems of the Department of Street Cleaning are under consideration. Table No. 2 presents this data in comprehensive form. The differences between the dominating styles of buildings in the three boroughs is worthy of note. New York has long been famous for its tall buildings. Most of these are represented by the office buildings in Manhattan, while Brooklyn and The Bronx are shown by the figures to be boroughs of homes. Testimony from the same source as to hotels and elevator apartment houses accounts for the large residential population of Manhattan. The million transients who comprise the greater part of Manhattan hotel residents are not included in these analyses.

Viewing the growing obligations of the Department of Street Cleaning from the standpoint of buildings, it is worth while to note that the number of buildings, of all descriptions, in the three boroughs was 9,362 greater in 1915 than in 1914, while the force employed was about the same in both years.

TABLE NO. 2
Classes of Buildings—1915.

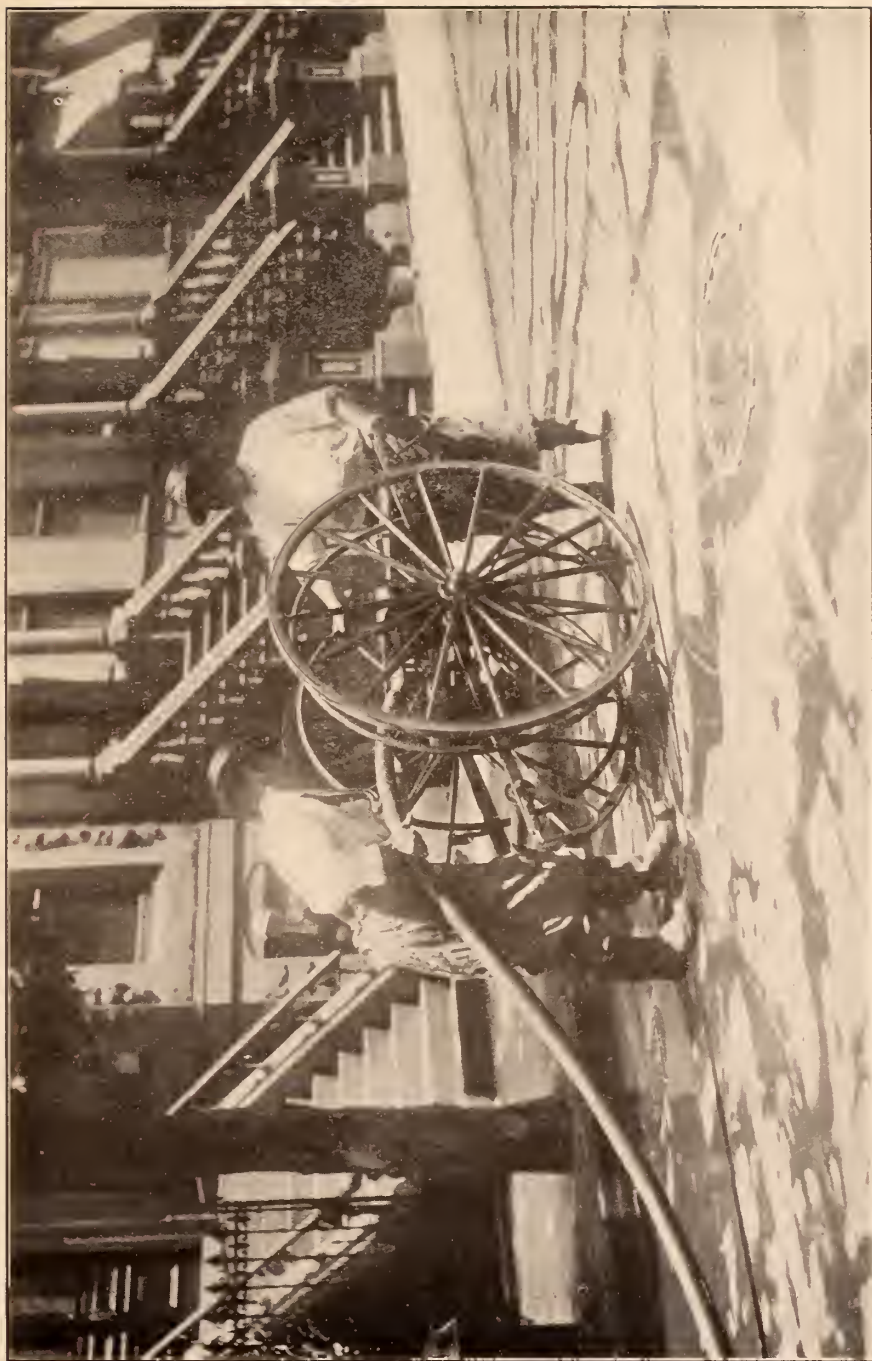
| | Man- hattan. | % | The Bronx. | % | Brook- lyn. | % | Total. | % |
|--|-----------------|------|---------------|------|----------------|------|---------|------|
| One family dwellings..... | 24,611 | 28.8 | 13,625 | 37.8 | 62,963 | 35.9 | 101,199 | 33.5 |
| Two family dwellings..... | 2,650 | 3.1 | 8,298 | 23.0 | 50,179 | 28.6 | 61,127 | 20.2 |
| Tenements without elevators..... | 40,243 | 47.1 | 9,945 | 27.6 | 46,450 | 26.4 | 96,638 | 32.2 |
| Hotels and elevator apartment houses..... | 2,198 | 2.6 | 78 | .2 | 202 | .1 | 2,478 | .8 |
| Warehouses, loft buildings and department stores | 7,994 | 9.3 | 142 | .4 | 1,579 | .9 | 9,715 | 3.05 |
| Office buildings..... | 799 | .9 | 67 | .2 | 143 | .9 | 1,009 | .33 |
| Factories..... | 1,024 | 1.7 | 272 | .8 | 2,499 | 1.4 | 4,195 | 1.3 |
| Stables and garages..... | 2,140 | 2.5 | 1,192 | 3.3 | 5,123 | 2.9 | 8,455 | 2.8 |
| Theaters..... | 146 | .1 | 17 | .05 | 84 | .4 | 247 | .08 |
| Special structures..... | 3,195 | 3.7 | 2,394 | 6.6 | 6,102 | 3.4 | 11,691 | 3.8 |

Pavement Areas

The areas and types of pavement under the control of the Department in the three boroughs are shown in Table No. 3. It will be noticed that the total area increased by more than half a million square yards during the year. The greater part of the pavements have smooth surfaces which is advantageous for cleaning purposes, and this explains to some degree the possibility of doing work of better quality with the same force aided by standard methods of procedure installed during the past two (2) years.

TABLE NO. 3.
Permanent Pavement—Area in Square Yards as of December 31, 1915.

| Pavement. | Manhattan. | The Bronx. | Brooklyn. | Gutters. | Total. |
|-------------------------|------------|------------|------------|----------|--------------|
| Sheet Asphalt..... | 4,951,282 | 1,243,431 | 10,169,197 | ..... | 16,363,910 |
| Asphalt Block..... | 1,317,183 | 1,285,960 | 573,920 | ..... | 3,177,063 |
| Granite Block..... | 2,316,010 | 1,210,446 | 3,374,837 | 123,443 | 7,024,736 |
| Medina Block..... | 4,572 | 3,954 | 144,240 | ..... | 152,766 |
| Belgium..... | ..... | ..... | 222,967 | ..... | 222,967 |
| Trap..... | 229,929 | 2,374 | 4,129 | ..... | 231,432 |
| Cobble..... | ..... | ..... | 68,812 | ..... | 68,812 |
| Brick..... | ..... | 1,091 | 44,758 | 76,302 | 122,151 |
| Wood Block..... | 737,577 | 121,791 | 160,201 | ..... | 1,019,569 |
| Iron Slag..... | ..... | 31,807 | 98,579 | ..... | 130,386 |
| Bituminous..... | ..... | 422,536 | ..... | 63,455 | 485,991 |
| Concrete Macadam..... | ..... | ..... | 400 | ..... | 400 |
| Total, 1915..... | 9,551,553 | 4,323,390 | 14,862,040 | 263,200 | 29,000,183 |
| Total, 1914..... | 9,550,507 | 4,182,409 | 14,521,515 | 226,586 | 28,481,017 |
| Increase in Paved Area. | 1,046 | 17,751 | 340,525 | 36,614 | Gain 519,166 |



NEW METHOD OF TRANSPORTING HOSE, ON SPECIALLY CONSTRUCTED REEL, MAKING FOR CONVENIENCE AND ECONOMY.

Pavement Disturbances—1915.

The disturbance of street pavements, because of subway construction and the continual tearing down and reconstruction of buildings which has been so extensive during the past few years, continued during 1915. The permits for opening pavements issued by the Borough Presidents were nearly twice as numerous as in the preceding year and, while the aggregate square yards of pavement disturbed did not increase proportionately, there was an increase amounting to 18,331 square yards and each opening was a distinct handicap in street cleaning work. Naturally there were fewer street openings occasioned by subway construction, as the larger part of the present subway work was begun before 1915; but it should be understood that only a fraction of the pavement disturbed by this work was restored prior to 1915. In addition to the large left-over disturbed area 623,172 square yards additional of pavement were opened by subway contractors during 1915. Not only is it difficult—sometimes impossible—to free the disturbed sections of pavement of dirt and dust, but traffic and winds are continually carrying dust to adjacent pavements. It can be easily seen that in addition to the annoyance caused by these conditions, the difficulties of keeping the streets in such sections cleaned are increased almost beyond calculation. Table No. 4 shows in detail, by boroughs, the openings made in street pavements during 1915.

TABLE NO. 4.
Pavement Disturbances, 1915.

| | Under Borough Presidents | | Subway Con- struction— Sq. Yds. Affected. | Total Sq. Yds. Pavement Opened. | Total Sq. Yds. Pavement. | % of Pavement Opened. |
|------------------|--------------------------------------|-----------------------|---|--|--------------------------------|-----------------------------|
| | Num- ber of Permits Issued. | Sq. Yds. Openings. | | | | |
| Manhattan..... | 15,500 | 131,399 | *320,892 | 452,291 | 9,551,553 | 4.73 |
| Brooklyn..... | 38,960 | 95,046 | **229,280 | 324,326 | 15,125,240 | 2.07 |
| The Bronx..... | 7,222 | 115,482 | 73,000 | 188,482 | 4,323,390 | 4.12 |
| Total..... | 61,682 | 341,927 | 623,172 | 965,099 | 29,000,183 | 3.32 |
| Total, 1914..... | 34,365 | 323,596 | 1,524,540 | 1,848,136 | 28,481,017 | 6.50 |

* 10,297 square yards on Seventh Avenue, between 43rd and 45th Streets, paved in Fall of 1915.

** This does not include the Eastern Parkway.

Department Equipment.

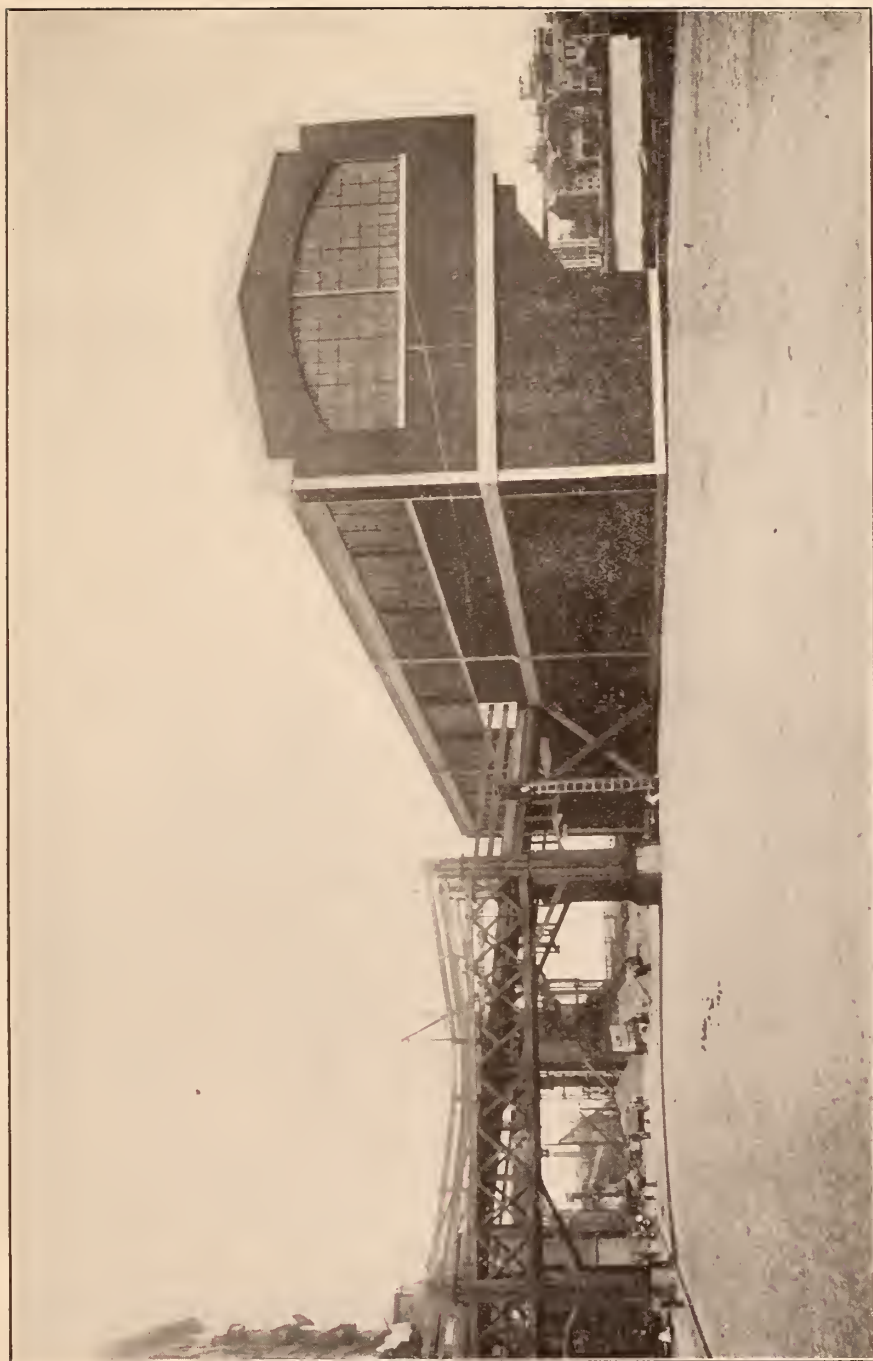
Table No. 5 summarizes the main articles of equipment used in the Department and compares the same period of 1915 with 1914. One of the items of interest in the table shows the continued decrease in the number of horses used by the Department, which was first reorded in a table contained in the 1914 report comparing that year with 1913. This decrease in the number of horses is more than off-set by the addition of motor-driven apparatus shown by classifications in the table. Another feature of this table, showing progress in methods, is the statistics relating to street-washing equipment, as given in the lines devoted to squeegees, sprinklers and hose outfits.

The addition of 25 trucks and 1,363 cans to the paper and rubbish service is also noteworthy. The decreases in certain items of equipment merely indicate changes in methods of doing work.

TABLE NO. 5.

Summary of Main Items of Equipment, as of September 30, 1914 and December 31, 1915.

| Item | Manhattan | | Brooklyn | | The Bronx | | Totals | | Gain or Loss, 1915 | |
|----------------------------------|-----------|-------|----------|-------|-----------|-------|--------|--------|--------------------|----------|
| | 1914 | 1915 | 1914 | 1915 | 1914 | 1915 | 1914 | 1915 | Increase | Decrease |
| Horses..... | 1,311 | 1,186 | 958 | 951 | 253 | 334 | 2,854 | 2,471 | .... | 73 |
| Buggies..... | 38 | 48 | 28 | 28 | 4 | 12 | 72 | 88 | 16 | .. |
| Steel Dump Carts..... | 1,220 | 1,143 | 814 | 817 | 218 | 284 | 2,252 | 2,244 | .... | 8 |
| Steel Dump Trucks..... | 26 | 21 | 76 | 65 | 11 | 2 | 113 | 88 | .... | 25 |
| Paper Carts..... | 206 | 196 | 216 | 220 | 30 | 37 | 452 | 453 | 1 | .... |
| Paper Trucks..... | .... | 19 | .... | .... | .... | 6 | 25 | .... | 25 | .... |
| Street Sweeping Machines..... | 82 | 77 | 52 | 53 | 15 | 18 | 149 | 148 | .... | 1 |
| Squeegees..... | 9 | 21 | 2 | 4 | .... | .... | 11 | 25 | 14 | .... |
| Reversible Road Machines | | | | | | | | | | |
| (Snow Plows)..... | 53 | 53 | 8 | 16 | 2 | 4 | 63 | 73 | 10 | .... |
| Sand Spreaders..... | .... | 3 | .... | 1 | .... | .... | .... | 4 | 4 | .... |
| Gasoline-Electric Tractors..... | .... | 12 | .... | .... | .... | .... | .... | 12 | 12 | .... |
| Electric Tractors..... | .... | 1 | .... | 1 | .... | .... | .... | 2 | 2 | .... |
| Gasoline Tractors..... | .... | .... | .... | 1 | .... | 1 | .... | 2 | 2 | .... |
| Collection Trailers..... | .... | 12 | .... | 3 | .... | 2 | .... | 17 | 17 | .... |
| Double Platform Trucks..... | 15 | 14 | 7 | 10 | 3 | 3 | 25 | 27 | 2 | .... |
| Single Express Wagons..... | 8 | 10 | 13 | 10 | 4 | 3 | 25 | 23 | .... | 2 |
| Bottom Dump Wagons..... | 5 | 5 | .... | .... | 15 | 20 | 20 | 25 | 5 | .... |
| Street Sprinklers..... | 38 | 52 | 54 | 55 | 14 | 14 | 106 | 121 | 15 | .... |
| Bicycles..... | 52 | 64 | 74 | 74 | 10 | 19 | 136 | 157 | 21 | .... |
| Street Flushing Machines..... | 4 | 4 | .... | .... | 1 | .... | 5 | 4 | .... | 1 |
| Combination Containers..... | .... | 30 | .... | .... | .... | .... | .... | 30 | 30 | .... |
| Steel Refuse Containers..... | .... | 130 | .... | .... | .... | .... | .... | 130 | 130 | .... |
| Drag Scrapers..... | 13 | 3 | .... | .... | 2 | 14 | 15 | 17 | 2 | .... |
| Sweepers' Cans..... | 7,148 | 7,491 | 5,502 | 5,974 | 1,210 | 1,549 | 13,860 | 15,014 | 1,154 | .... |
| P. & R. Cans..... | 440 | 1,574 | 387 | 591 | 138 | 163 | 965 | 2,328 | 1,363 | .... |
| Can Carriers..... | 2,169 | 1,643 | 1,505 | 1,542 | 280 | 228 | 3,954 | 3,413 | .... | 541 |
| Asphalt Scrapers..... | 2,486 | 1,750 | 1,410 | 1,466 | 276 | 358 | 4,172 | 3,574 | .... | 598 |
| Flushing Hose (50' lengths)..... | 248 | 395 | 95 | 121 | 12 | 48 | 355 | 564 | 109 | .... |



COVERED DUMP AT 7²ND STREET AND EAST RIVER, DESIGNED AND ERECTED BY THE PRESENT ADMINISTRATION.

Department Properties and Leases.

There are twenty-five (25) stables in the service of the Department, thirteen (13) in Manhattan, of which one (1) is City property and twelve (12) are leased; eight in Brooklyn, two (2) owned by the City and six (6) leased; four (4) in The Bronx, one (1) owned by the City and three (3) leased. There are sixty-nine (69) section stations in the Department, of which thirty-eight (38) are in Manhattan; twenty-three (23) in Brooklyn and eight (8) in The Bronx. The City owns four (4) and leases ten (10) storage and incumbrance yards, nine (9) in Manhattan, three (3) in Brooklyn and two (2) in The Bronx. The Department uses eighteen (18) waterfront dumps, which are the property of the City. Fourteen (14) of these dumps are located in Manhattan, two (2) in Brooklyn and two (2) in The Bronx. One dump was hired for temporary service in Manhattan, but has been replaced by a city-owned dump. The branch executive offices of the Department in Brooklyn and The Bronx occupy leased quarters and one (1) relay station in Brooklyn Borough is upon leased property.

The total amount paid out by the Department for leases in 1915 was \$179,171. Table No. 6 presents in classified form the amounts expended for leases by the Department during the year.

TABLE NO. 6.
Expended for Leased Properties—1915.

| Borough | Stables | Storage and | | | Office Rents | Relay Stations | Totals |
|----------------|--------------|---------------------|----------------------|-------------|-----------------|-------------------|--------------|
| | | Section Stations | Incumbrance Yards | Dumps | | | |
| Manhattan..... | \$72,500.00 | \$23,076.00 | \$12,460.00 | \$9,210.00 | ..... | ..... | \$117,246.00 |
| Brooklyn..... | 28,165.00 | 11,856.00 | 1,300.00 | 1,825.00 | \$3,495.00 | \$365.00 | 47,006.00 |
| The Bronx..... | 10,275.00 | 2,844.00 | 1,200.00 | ..... | 600.00 | ..... | 14,919.00 |
| Totals..... | \$110,890.00 | \$37,776.00 | \$14,960.00 | \$11,035.00 | \$4,095.00 | \$365.00 | \$179,171.00 |

The Department Force

The normal force of the Department numbers 7,068 including extra sweepers and drivers, who are employed in the absence of regulars or in times of emergency. There are 2,724 regular sweepers and 427 extra sweepers, 1,503 regular drivers and 1,069 extra drivers, 487 stable employees, 177 mechanics and 128 in the final disposition division. A classified list of the entire force is given in Appendix A.

TABLE NO. 7.
Final Disposition—Manhattan, The Bronx and Brooklyn, 1915.
With Contract ~~Costs~~ **Costs**

| | Ashes Cubic Yards | Cost | Rubbish Cubic Yards | Cost | Garbage Cubic Yards | Total Cubic Yards | Total Cost |
|--|----------------------|----------------|------------------------|-------------|------------------------|----------------------|----------------|
| Manhattan..... | 3,266,261.88 | \$520,424.38 | 2,063,486.25 | \$65,756.42 | 426,976.5 | 5,756,724.63 | \$586,180.80 |
| Brooklyn..... | 1,511,170.875 | 634,691.77 | 1,533,498.75 | 20,446.65 | 239,923.125 | 3,284,592.75 | 655,138.42 |
| The Bronx..... | 379,320.96 | 60,438.47 | 354,911.25 | 11,309.84 | 130,923. | 865,155.21 | 71,748.31 |
| Total..... | 5,156,753.715 | \$1,215,554.62 | 3,951,896.25 | \$97,512.91 | 797,822.625 | 9,906,472.59 | \$1,313,067.53 |
| Blackwell's and Randall's Islands..... | 13,542. | \$3,000.00 | ..... | ..... | ..... | 13,542. | \$3,000.00 |
| Harbor Scows..... | 31,200. | 9,000.00 | ..... | ..... | ..... | 31,200. | 9,000.00 |
| Grand Total..... | 5,201,495.715 | \$1,227,554.62 | 3,951,896.25 | \$97,512.91 | 797,822.625 | 9,951,214.59 | \$1,325,067.53 |



COVERED DUMP AT 77TH STREET AND NORTH RIVER, DESIGNED AND ERECTED DURING 1915.

The Cost of Disposal

During the year 1915 the Department disposed of 9,951,214.59 cubic yards of ashes, street sweepings, rubbish and garbage. Exclusive of garbage, the disposal of which was without cost to the city, the cost of disposal averaged 14.5 cents per cubic yard. Table No. 7 (on page 24) shows in classified form the cubic yards of refuse disposed of with the aggregate cost by boroughs.

Comparison of Classified Costs

Table 7A summarizes the cost for the four main functions of the Department for the year 1915 and presents similar statistics for the years 1911 to 1914, inclusive. It will be seen that the total amounts have not varied greatly during the years cited, if the cost of snow work is eliminated from the annual totals. Weather conditions determine the amount which must be expended upon snow removal.

Due to the European War there were in 1915 large advances in the cost of forage and many other articles required for the maintenance of the Department. Had the market prices for these articles remained the same as in 1914, the cost of carrying on the normal functions of the Department would have been appreciably less in 1915 than in the preceding year, notwithstanding enlargement of area covered and an increase of 16,000 cartloads in the quantity of waste matter handled.

The working force of the Department has been practically of the same extent during the years included in the table.

TABLE NO. 7A.

**Classified Costs of Sweeping, Refuse Collection, Final Disposition and Snow Removal,
in the Years 1911, 1912, 1913, 1914 and 1915.**

| Item | 1911 | 1912 | 1913 | 1914 | 1915 |
|--------------------------------|----------------|----------------|----------------|-----------------|----------------|
| Sweeping and Cleaning. | \$2,876,659.50 | \$2,939,695.47 | \$2,868,669.16 | \$2,814,344.46 | \$2,709,345.96 |
| Carting and Stable. | 3,647,669.23 | 3,511,074.65 | 3,259,762.72 | 3,235,913.00 | 3,508,808.18 |
| Final Disposition. | 1,483,171.99 | 1,445,653.32 | 1,474,957.46 | 1,697,939.91 | 1,677,160.45 |
| Snow and Ice. | 1,145,385.92 | 926,465.56 | 11,157.72 | 2,446,736.25 | 953,661.17 |
| Total. | \$9,152,886.54 | \$8,822,889.00 | \$7,614,547.06 | \$10,194,933.62 | \$8,848,975.76 |

Discipline.

The records of 1915 show a continued improvement over 1914 in the discipline of the Department, just as 1914 showed improvement over 1913. A comparison of statistics for the two years indicates increased carefulness in the making of charges against the men, inasmuch as the percentage of charges sustained was larger, while the number of charges made was considerably less in 1915 than in 1914. Further emphasis of this point may be seen in the penalties affixed, as shown in the table.

In 1914 there were 3,907 cases, in 2,734 of which the charges were sustained; in 1915, 2,956 charges were made and 2,262 sustained.

In 1914 there were 430 dismissals, or 16 per cent of the sustained cases, for infraction of the rules, and fines aggregating 140½ days, or 5½ per cent.

The dismissals in 1915 were 415, or 19 per cent of the sustained cases, while the total of days fined was 501, or 22 per cent.

Suspensions without pay averaged about the same in both years, 3½ days. The total in 1914 was 9,488 days, and in 1915, 7,935 days.

To some extent improvement in the conduct of employees should be credited to the new regulations governing promotions, put into force in 1915. Under the new system promotions by grades at the end of the year, with increases in wages, are attained only by employees who during the year have not been guilty of infraction of the rules and regulations. As in 1914, the largest proportion of charges in 1915 was for insubordination, but, nevertheless, there was a decrease of 22 per cent. in this class of cases. There was a reduction of 50 per cent. in charges for absence from duty, and an increase of 25 per cent. in cases of incompetency, showing a closer scrutiny of the capabilities of members of the force.

December 31 there was a total force of 7,068 men on the payrolls, a reduction of 85 as compared with the rolls as of December 31, 1914. The forces are distributed as to boroughs, Manhattan 3,773; Brooklyn 2,462; The Bronx 833.

Changes in Force.

Following the principle adopted by the Department in 1914, every possible effort was made during 1915 to avoid unprofitable disturbances of the force. The table dealing with this subject shows still further progress in the effort to maintain a well-trained, reliable and competent working force. The practice of reinstating men who had been dismissed from the service—a practice that had grown up during the years previous to 1914 and which was first attacked by the Department in 1914, was further curbed in 1915. In 1913 there were 237 reappointments of dismissed employees. In 1914 there were only 35 reappointments and in 1915 there were but 11 such cases.

Tables Nos. 8 and 9 give the statistics of discipline more fully for both 1914 and 1915.



INTERIOR VIEW OF ASH STATION, AT PACIFIC STREET AND CARLTON AVENUE, BROOKLYN, SHOWING DUCT FOR CONTROLLING DUST.



TABLE NO. 8.
Disciplinary Account. Comparison, 1914-1915.

| Borough | Year | Total No. of Men on Charges | Fines and Suspensions on Charges for | | | | | | | | | | |
|----------------|------|--------------------------------------|---|----------------------------------|-----------------|---------------|-------------------------|-----------------|---------------|-------------------------|-----------------|---------------|-------------------------|
| | | | Number Not Guilty, of Dis- missals on Charges | Absences | | | Insubordination | | | Incompetency | | | |
| | | | | Repri- mands on Charges | No. of Cases | Days Fines | Days Sus- pension | No. of Cases | Days Fines | Days Sus- pension | No. of Cases | Days Fines | Days Sus- pension |
| Manhattan..... | 1914 | 2,881 | 283 | 977 | 544 | 33 | 2,407½ | 796 | 2 | 3,803½ | 263 | 5 | 1,008¾ |
| | 1915 | 2,019 | 272 | 524 | 256 | 203 | 574 | 520 | 95 | 3,259 | 280 | ... | 1,406 |
| Brooklyn..... | 1914 | 626 | 116 | 85 | 171 | .... | 577 | 219 | 21 | 924 | 28 | 2 | 113 |
| | 1915 | 501 | 105 | 53 | 82 | .... | 339 | 195 | 24 | 918 | 56 | 3 | 260 |
| The Bronx..... | 1914 | 400 | 31 | 111 | 135 | 39 | 192 | 109 | 38½ | 434 | 14 | 9 | 29 |
| | 1915 | 436 | 38 | 117 | 84 | 2 | 286 | 156 | 66 | 757½ | 40 | 8 | 136 |
| Totals..... | 1914 | 3,907 | 430 | 1,173 | 850 | 72 | 3,176½ | 1,124 | 61½ | 5,161½ | 305 | 16 | 1,150¾ |
| | 1915 | 2,956 | 415 | 694 | 422 | 205 | 1,199 | 871 | 185 | 4,934½ | 376 | 11 | 1,802 |

TABLE NO. 9.
Changes in Force—1914 and 1915.

| Boroughs and Years | Deaths | Dismissals | Resignations | Regular Employees | | Extra Employees | | Promotions | Retirements on Pensions | | |
|--------------------|--------|------------|--------------|-------------------|-------------|------------------|---|------------|-------------------------|------|------|
| | | | | Appointed | Reappointed | Assigned to Work | Reinstated After Dismissal or Resignation | | Employees | | |
| Manhattan— | | | | | | | | | | | |
| 1914..... | 45 | 283 | 173 | 274 | 26 | 528 | 14 | 12 | 72 | .... | .. |
| 1915..... | 44 | 272 | 143 | 247 | 7 | 293 | 7 | 3 | 139 | .... | .... |
| Brooklyn— | | | | | | | | | | | |
| 1914..... | 25 | 116 | 74 | 107 | 6 | 177 | 4 | 9 | 28 | .... | .... |
| 1915..... | 35 | 105 | 53 | 119 | 2 | 186 | 6 | 3 | 42 | .... | .. |
| The Bronx— | | | | | | | | | | | |
| 1914..... | 4 | 31 | 30 | 34 | 3 | 72 | 5 | .... | 7 | .... | .. |
| 1915..... | 13 | 39 | 22 | 127 | 2 | 88 | 2 | 1 | 14 | .... | .. |
| Totals— | | | | | | | | | | | |
| 1914..... | 74 | 430 | 277 | 415 | 35 | 777 | 23 | 21 | 107 | .... | .... |
| 1915..... | 92 | 416 | 218 | 493 | 11 | 567 | 15 | 7 | 195 | .... | .... |

Medals Awarded for Meritorious Service.

The Women's Municipal League, which gives special attention to street conditions in New York, once a year presents medals to those members of the Department of Street Cleaning field forces of Manhattan and The Bronx, who have during the preceding twelve (12) months performed their duties in an especially satisfactory manner. April 20, 1915, this league presented medals to 126 employees of the Department.

The Central Mercantile Association and the Gansevoort Business Men's Association combined in the presentation of medals to members of the Department assigned during the year to duty in the section covered by the two associations. On October 13, 1915, at Union Square, medals were presented by these associations to twenty-one officers, drivers and sweepers.

Mrs. Frances H. K. Vietor, who has for several years made awards to members of the Brooklyn division of the Department, on June 17, 1915, presented medals to two and pins to five members of the force in that borough.

Medical Examinations.

Following the practice inaugurated in 1914 a complete record of the work of the Department's four medical examiners was kept during the year just closed. Table No. 10 gives the number of examinations made by each physician, with partial classification of diseases and ailments from which men of the working force of the Department were found to be suffering. Table No. 11 summarizes the examinations for 1914 and 1915, in comparison.

It will be noticed that, while the number of examinations in 1915 were less, by approximately 1,500, than in 1914, there were nearly 800 more surgical cases in 1915 than in the preceding year. The increase in the number of surgical examinations is accounted for upon two grounds. Men granted half-pay because of disability incurred in the discharge of duty were given shorter leaves of absence than formerly in such cases, so that they could be more closely supervised. As a consequence, they returned more frequently for examination than in 1914, when fewer grants of half-pay were given and longer leaves for disability were allowed. Again, in the classification of 1915 all conditions of the eye, ear, nose, throat and urogenital organs which required in treatment surgical measures were classed as surgical cases.

As was forecast in the report for 1914, greater care has been given to the physical condition of the men during 1915. To further promote the efficiency of this Department, provision has been made for the employment of a physician hereafter who will be in charge of the medical division and will devote his entire time to the service.

TABLE NO. 10.
Medical Examiners' Reports for 1915.

| Examiners | Examinations | | | Surgical Cases | | Medical Cases | | | Feigning Illness | New Applicants |
|--------------------|---------------------------|-----------------|-----------------|----------------|-------|---------------|------------|-------|------------------|----------------|
| | Total No. of Examinations | Patient's House | Doctor's Office | Hernia | Other | Tuberculosis | Rheumatism | Other | | |
| Dr. Salisbury..... | 1,813 | 222 | 1,591 | 31 | 889 | 20 | 186 | 597 | 80 | 257 |
| Dr. Anderson..... | 1,154 | 358 | 796 | 26 | 411 | 43 | 33 | 1,371 | 28 | 116. |
| Dr. Weinberg..... | 2,953 | 292 | 2,661 | 27 | 1,030 | 16 | 118 | 1,154 | 50 | 316. |
| Dr. Straub..... | 1,220 | 250 | 970 | 8 | 389 | 25 | *186 | 612 | 35 | 45 |
| Total..... | 7,140 | 1,122 | 6,018 | 92 | 2,719 | 104 | 523 | 3,734 | 193 | 734 |

* Estimated.

TABLE NO. 11.
Summary of 1914 and 1915 Reports.

| | 1914 | 1915 |
|-----------------------------------|-------|-------|
| Total number of examinations..... | 8,667 | 7,140 |
| At the patient's house..... | 1,339 | 1,122 |
| At Department offices..... | 6,083 | 6,018 |
| Applicants for appointment..... | 1,027 | 734 |
| Surgical cases..... | 2,058 | 2,811 |
| Medical cases..... | 5,265 | 4,361 |
| Feigning illness..... | 339 | 193 |
| Hernia..... | 79 | 92 |
| Tuberculosis..... | 94 | 104 |
| Rheumatism..... | 591 | *523 |

* Estimated. One examiner returned no record.

Accidents.

During the year 1915 there were 2,403 accidents in connection with Department activities resulting in death, personal injury or damage to property. This number was 103 less than in 1914, and the deaths due to accidents were one-half the number of those in the former year, being 5 in 1915 and 10, of whom 7 were department employees, in 1914. In 1915 two drivers and two sweepers were killed while discharging their duties and a child playing in the street was knocked down and killed by a Department cart. Table No. 12 summarizes, in classified form, the accident reports of the year.

TABLE NO. 12.
Summary of Accidents, Injury, Damage Reports—1915.

| Borough | Department | | | | Citizen | | | Miscellaneous | |
|----------------|----------------|---------|--------|------------------|---------|--------|------------------|---------------|----------------|
| | No. of Reports | Injured | Killed | Property Damaged | Injured | Killed | Property Damaged | No Damage | Damage Unknown |
| Manhattan..... | 1,460 | 641 | 3 | 170 | 96 | 1 | 428 | 47 | 74 |
| Brooklyn..... | 678 | 333 | 1 | 65 | 37 | .. | 212 | 13 | 17 |
| The Bronx..... | 265 | 128 | .. | 29 | 18 | .. | 74 | 8 | 8 |
| Totals..... | 2,403 | 1,102 | 4 | 264 | 151 | 1 | 714 | 68 | 99 |

Following are the names of those killed in the service during 1915, with cause and date of death:

William Anderson, driver, cart passed over head, 81 East 114th Street, January 2, 1915; Pietro Cusino, sweeper, struck by auto and run over by

car, 402 Lafayette Street, February 8, 1915; Isidore Jacoby, driver, run over by department horse, 138th Street dump, March 1, 1915; William Lansing, sweeper, run over and killed by automobile, 202 Moffat Street, Brooklyn, March 1, 1915.

Complaints from Inhabitants.

During 1915 there were 3,421 formal complaints made against the Department by citizens because of unsatisfactory performance of duties. The chief cause of complaint was failure to promptly remove refuse; next in importance were the complaints against street conditions. In 1914 the complaints for non-removal of refuse were 942 more in number than in 1915, and 170 more because of street conditions in the preceding than in the last year. In the matter of complaints for the non-removal of refuse, investigation by competent and trustworthy representatives of the Department showed that in the majority of the cases the fault lay with the complainant or his agents and not with the employees of the Department.

As evidence that the service rendered by the department is surely advancing in the estimation of the people, it should be noted that complaints from all causes were 918 less in 1915 than in the preceding year, when the total was 4,339.

Table No. 13 gives in detail the complaints from various causes in each of the Boroughs and shows the population per complaint in each class.

TABLE NO. 13.

Formal Complaints from Inhabitants, 1915.

| Borough | Population | Item | Non- removal of Refuse | Street Condi- tions | Mis- conduct of Em- ployees | Miscel- aneous | Total |
|----------------|------------|--------------------------|------------------------------|---------------------------|--------------------------------------|-------------------|-------|
| | | Number | 2,149 | 63 | 117 | 82 | 2,411 |
| Manhattan..... | 2,585,469 | Population per complaint | 1,203 | 41,039 | 22,098 | 31,589 | 1,072 |
| | | Number | 389 | 142 | 18 | 118 | 667 |
| Brooklyn..... | 1,881,063 | Population per complaint | 4,833 | 13,247 | 104,503 | 15,941 | 2,821 |
| | | Number | 240 | 16 | 13 | 74 | 243 |
| The Bronx..... | 552,538 | Population per complaint | 2,302 | 34,534 | 42,503 | 7,464 | 1,611 |
| | | Number | 2,778 | 221 | 148 | 274 | 3,421 |
| Total..... | 5,019,070 | Population per complaint | 1,807 | 15,635 | 33,912 | 18,317 | 1,467 |

Complaints Against Inhabitants

Considered in connection with the foregoing record of complaints against the Department, the failure of citizens to comply with the plain letter of the ordinances relative to the cleaning of streets and the disposal of refuse are of peculiar interest. So common were the violations of the ordinances in 1915 that 5,951 persons were arrested, nearly two to one in comparison with complaints against Department employees. Of those arrested and brought before the courts 4,759 were fined and eight given short jail sentences. The amount of the fines collected from this source was \$5,025.

There is less excuse than in former years for citizens becoming liable to arrest for violation of street cleaning and refuse disposal ordinances, because of the system of warning violators instituted by the present administration of the Department in the latter part of 1914. Warnings are served by members of the Department upon first offenders and arrests are made only when there is failure to heed the warnings. During 1915 there were 38,520 formal written warnings served upon violators of the ordinances. Table No. 14 gives the data upon this subject more in detail.

TABLE NO. 14.
Complaints Against Inhabitants—1915.

| | Warn- ings | Arrests | Fines | Repri- mands | Sus- pended | Dis- charged | Jailed | Amount of Fines |
|----------------|---------------|---------|-------|-----------------|----------------|-----------------|--------|-----------------------|
| Manhattan..... | 25,091 | 4,495 | 3,711 | 247 | 382 | 151 | 4 | \$3,810.00 |
| Brooklyn..... | 11,422 | 1,283 | 911 | 25 | 327 | 19 | 1 | 1,014.00 |
| The Bronx..... | 2,007 | 173 | 137 | 12 | 18 | 3 | 3 | 201.00 |
| Total..... | 38,520 | 5,951 | 4,759 | 284 | 727 | 173 | 8 | \$5,025.00 |

The Horse Versus the Auto.

In view of the general belief of a dozen years ago that the acceptance of the motor-driven vehicle of transportation would practically drive the horse from the roads and streets, especially in cities, a study of the actual results in this regard is interesting. It has not been possible to secure reliable data upon this subject covering any period suitable for comparison prior to 1914, but the statistics of that year and of 1915 serve to indicate the tendency in New York and two other leading American cities. Table No. 15 shows that the number of motor vehicles in each of the three cities has increased during one year at astonishing rates. The small decreases in the number of horses, especially in New York, are inconsequential when compared with the increases of motor vehicles.

Therefore, as a factor in the problem of street cleaning in New York the horse is not becoming appreciably less important.



MOTOR-DRAWN RELAY GARBAGE TRAIN, IN SERVICE IN THE BRONX.

TABLE NO. 15.

Horses and Motors, 1914-1915.

| City | Horses | | Per Cent In- crease | Per Cent De- crease | Motor Vehicles | | Per Cent In- crease | Per Cent De- crease |
|---------------|---------|---------|---------------------------|---------------------------|----------------|--------|---------------------------|---------------------------|
| | 1914 | 1915 | | | 1914 | 1915 | | |
| New York..... | 102,788 | 101,723 | ..... | 1.5 | 47,292 | 62,905 | 33 | ..... |
| Chicago..... | 67,385 | 63,032 | ..... | 6.4 | 35,537 | 42,523 | 20 | ..... |
| Boston..... | 13,995 | 13,495 | ..... | 3.6 | 9,964 | 12,994 | 30.4 | ..... |

The statistics for New York include only the Boroughs of Manhattan, The Bronx and Brooklyn, the territory under the jurisdiction of this Department.

Supplies and Their Storage.

Approximately 80 per cent of the supplies were purchased on contract during 1915.

During the year an old building was secured for use as a central storehouse at 140 West 20th Street, Manhattan, and early in January, 1916, its appointments will be completed and the stores will be removed thereto.

A new system of stores control will also be instituted on January 1, 1916. In this connection auto delivery of supplies will be instituted, which will make available for other service about fifty (50) horses that are now necessary for the transportation of supplies.

It is believed that these changes will enhance the control and handling of stores, as well as affect a considerable saving in transportation charges.

Commissioners' Weekly Hearings.

The practice inaugurated by the Commissioner during the spring of 1914 of granting hearings to employees who desired to present grievances, personal or otherwise, and suggestions relating to the service, has been continued, with satisfactory results, during the year 1915.

Any employee of the Department may secure a private audience with the Commissioner by previous arrangement. One evening each week is devoted by the Commissioner to these hearings, providing there are requests to be heard on file in his office and there are no other matters of an imperative character making postponement necessary.

During 1915, from January 8th to December 23d, both inclusive, 308 employees requested and were granted interviews with the Commissioner. In 1914, from April 3d to December 18th, the number of such hearings was 273.

Exhibition of Apparatus and Methods.

The second annual exhibition of Street Cleaning Apparatus and Methods was held under the auspices of this Department in the First Regiment Field Artillery Armory, 68th Street and Broadway, New York City, during the week of October 11-16, 1915. The exhibition presented in impressive form evidence of the progress that is being made in an important field of social activity and emphasized the need of coöperation upon the part of the individual citizen and the public generally with responsible officials if city thoroughfares are to be kept clean and healthful. These were the main purposes of the second exhibition, as they were of the first, which was held in November, 1914.

While the first exhibition's success realized the hope of its promoters, that an active, broadened interest in the subject of street cleaning and refuse disposal might be aroused by such an enterprise, the more recent affair gave evidence of encouraging progress in constructive methods and growing interest on the part of the lay citizenship in public cleanliness and its relation to health.

The exhibits entered by manufacturers and inventors brought together under one roof the very latest developments in machinery and other equipment devised for street cleaning and refuse disposal. Several of the heavier pieces of machinery were brought from factories far removed from New York, at considerable expense to the exhibitors. No charge, however, was made for space in the exhibition. Tests of new machines were made on the City's streets under the direction of a committee of experts, and witnessed by visiting officials of other cities.

A number of interesting and instructive addresses were delivered in the exhibition's forum, which was a daily feature, the speakers including Mayor Mitchel, other representatives of the City government and experts especially qualified to discuss the problems closely related to street cleaning and refuse disposal. A majority of the speakers laid particular emphasis upon the importance of coöperation between the people and the Department of Street Cleaning.

An attractive feature of the second exhibition, as of the first, was the school children's poster competition. More than one hundred and fifty drawings were passed by the hanging committee and the poster section was a favorite spot for adults as well as for the children. A loving cup, a gold medal, a silver medal and eleven bronze medals—personal gifts of the Commissioner of this Department—were awarded by a jury of eminent authorities in art for the more meritorious posters.

Marked interest in the exhibition was shown by the officials in attendance as representatives of other cities, of whom there were more than forty. Many of them came long distances and a majority remained during the entire week.

Chaplains and Memorial Services.

Believing that some consideration for the spiritual welfare of the men of the Department would be acceptable to them and would assist in various ways in drawing them together in a better fellowship, the Commissioner, in April, requested the following clergymen to serve as honorary chaplains:

| | |
|--------------------------------|----------------------------------|
| Rev. E. Briggs Nash..... | Cathedral of St. John the Divine |
| Rev. Aniseto Silvioni..... | St. Anthony's Church |
| Rabbi Edward Lissman..... | Hebrew Tabernacle |
| Rev. Christian F. Reisner..... | Grace M. E. Church |

These gentlemen accepted the appointments tendered them by the Commissioner and have since, by freely giving of their time and talents, shown deep interest in the welfare—material as well as spiritual—of the seven thousand men under their charge.

Special services, under the directions of the Chaplains, have been held in churches and public auditoriums during the year and the men, by their attendance at these meetings and in other ways, have shown their appreciation of the friendly endeavors of the reverend gentlemen. The chaplains themselves have given assurance of their satisfaction with the results of the experiment and all of them willingly continue in the service for the coming year.

The annual service in memory of the employees of the Department who died during the year 1914 and up to May 12, 1915, was held in the Hebrew Tabernacle, 220 West 130th Street, Sunday morning, May 30. The services were under the direction of the Chaplains, who were assisted by the Department of Street Cleaning quartette. Rabbi Lissman delivered the sermon, selecting "Cleanliness" as his text.

EDUCATIONAL.

The Advisory Council.

During the exhibition of street cleaning apparatus and methods, held under the auspices of the New York Department of Street Cleaning, November 16-23, 1914, an evening was given over to the discussion of methods for arousing the interest and securing the enlightened coöperation of the people of the City with the Department. It was the unanimous opinion of those who took part in the meeting that attempts of the Department of Street Cleaning to maintain in the city's streets a satisfactory condition would always depend to a large degree, upon such coöperation.

To arouse public interest in the subject, through agitation and education, it was decided to form a citizen's committee and subsequently the Commissioner requested the following persons to serve upon the Committee as an Advisory Council:

| | |
|------------------------------|-----------------------------------|
| Dr. Louis I. Dublin..... | Metropolitan Insurance Co. |
| Dr. Charles Bolduan..... | Department of Health |
| Dr. Ira S. Wile..... | Department of Education |
| Dr. B. Sachs..... | Academy of Medicine |
| Mr. Robert S. Binkerd..... | City Club |
| Mr. Leo Arnstein..... | Secretary Board of Aldermen |
| Mrs. Julius Henry Cohen..... | Woman's Municipal League |
| Mrs. Mabel Spinney..... | Greenwich House |
| Mrs. Ralph Trautman..... | Women's Health Protective Assn. |
| Dr. D. B. Armstrong..... | Dept. Social Welfare, A. I. C. P. |
| Mr. W. F. S. Edwards..... | Secy. Gramercy Neighborhood Assn. |
| Mr. John C. Eames..... | Merchants' Association |
| Mr. David Robinson..... | Secretary Broadway Association |
| Mr. Joseph E. Kean..... | Secretary Mercantile Association |
| Dr. Paul Abelson..... | Jewish Community |

At its first meeting the Advisory Council selected Dr. Donald B. Armstrong as chairman, and provided for the following standing committees: Committee on Schools, Committee on Subways, Theatres, etc., Committee on East Side Street Conditions.

Accomplishments of Council.

While the accomplishments of the first year by the Advisory Council have been modest they have, however, marked a beginning in the field of clean street education. The results of the work so far might be outlined in brief as follows:

1. Formation of special East Side Committee to work in coöperation with private agencies and with local officers of the Health Department in that neighborhood; to create boys' and girls' block organizations for the control of the evil of street disposal of garbage, refuse, etc.

2. The preparation of a booklet on "Clean Streets" to be used in the schools with the coöperation of the Department of Education.

3. The preparation of a series of educational signs, to be changed from time to time, and to be placed in special frames attached to the paper carts used by the Department of Street Cleaning.

4. The distribution of 15,000 educational "Dirt-Disease-and-Death" placards in the schools, the theaters, milk stations, hospitals, clinics, etc.

5. The preparation of a series of special notices, distributed for use in the bulletins of the neighborhood associations, settlements, churches, labor unions, etc.

While the future may lead the Advisory Council into activity of a character other than strictly educational, the immediate things now being undertaken to obtain further publicity for clean street methods are:

1. The appointment of further district committees to carry on work in other sections of the city similar to that now being planned by the Special Committee for the lower East Side.

2. The setting aside of "clean street days" in the schools, when special attention will be paid to clean streets educational work among the school children.

3. The display of 500 full-sized educational bill-board posters. The space and paper for this purpose have very generously been donated and the poster will be issued as soon as the funds are available for printing.

4. The use of clean street cards in the advertising space in the street cars. Space for this purpose is now available at half the commercial rate. A card has been prepared for this purpose and this channel for educational work will be utilized as soon as funds become available.

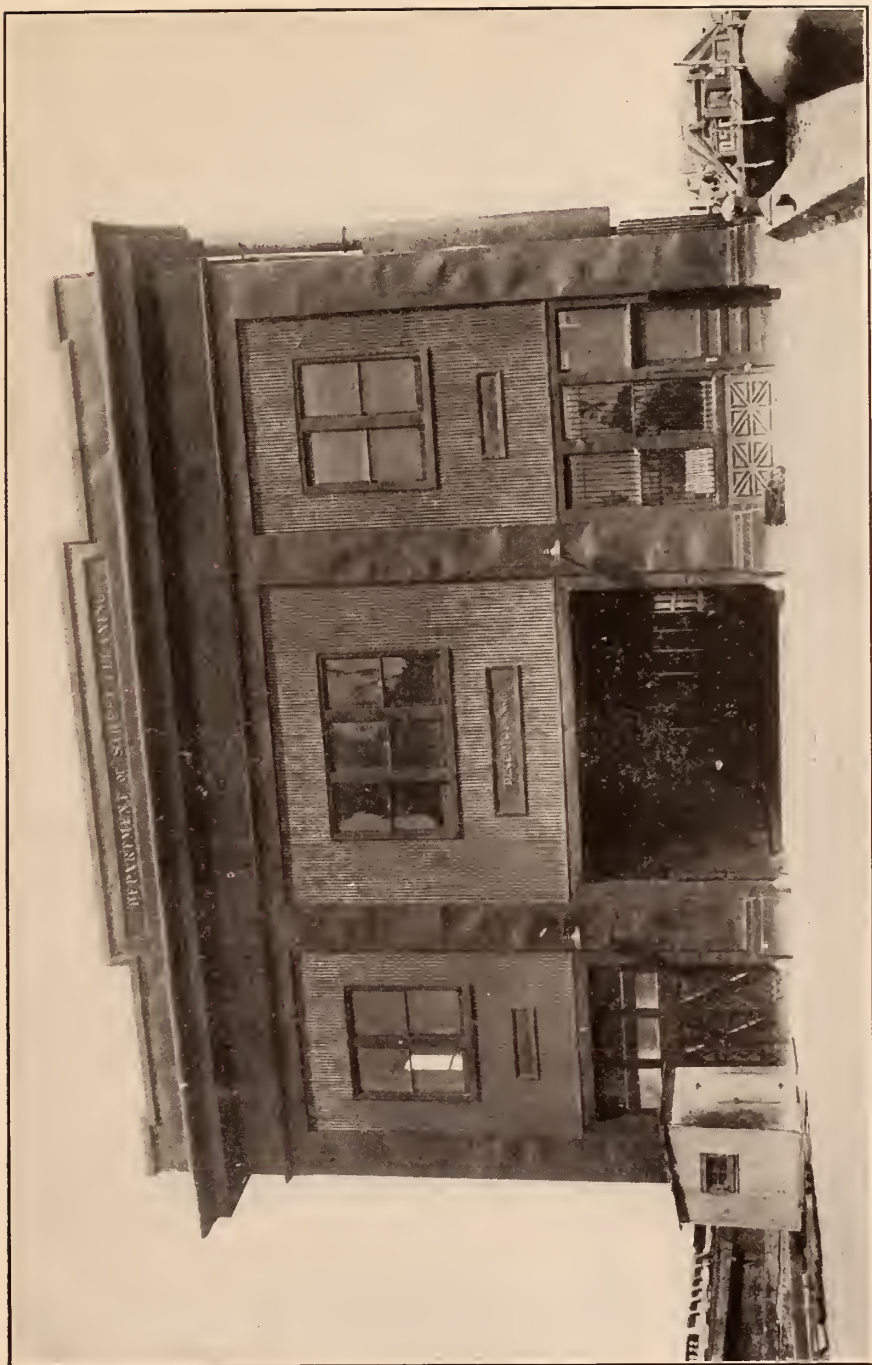
The Juvenile Leagues.

The Juvenile Leagues, composed of school children, who enroll as volunteer aids to the Department of Street Cleaning, increased by 100 leagues during the year. The leagues in operation on December 31, 1915, were 400 in number. This movement was inaugurated during the administration of Colonel George E. Waring in 1897, forty-four leagues being instituted that year, only two of which, however, were located in public schools. Now the leagues are all connected with the schools, one to each of 400 schools.

During the year 1915 the supervisor of Juvenile Leagues, who is attached to the Department of Street Cleaning, visited formally 300 schools, delivering an address in each case under the auspices of the local league. The supervisor reports a constantly growing interest in the subject of clean streets upon the part of the school children of the City, and is confident that the Juvenile Leagues not only are arousing a desire to coöperate with the Department, but are giving the children an understanding of what citizenship signifies and implanting in them a proper civic pride.

Lectures by Department Officials.

In addition to the educational work performed by the Advisory Council and the Juvenile Leagues, more than two-score of lectures before clubs, civic societies and church congregations were delivered during the year by the Commissioner and members of his immediate staff. A majority of these lectures were illustrated by lantern slides and, by these means, many citizens were given a clearer insight into the problems confronting the Department and the methods employed for their solution.



"MODEL DISTRICT" BUILDING, CONTAINING DISTRICT OFFICES, GARAGE AND MODERN CONVENIENCES FOR MEN AND MACHINES. PLANNED AND ERECTED IN 1915.

THE MODEL DISTRICT

The so-called Model District, otherwise District No. 6, of Manhattan, is fairly representative of the whole City in so far as the duties and problems of the Department of Street Cleaning are concerned. For this reason it was selected as the trial ground of improved methods and modern equipment. The district's boundaries are, the East River, 12th Street, west to Fifth Avenue, north to 22d Street, west to Sixth Avenue, north to 40th Street, east to East River.

Following is a summary of the work done and the progress made in the district, up to the close of the year.

During the early part of the year considerable time was necessarily consumed in planning for the work of the Model District under the new methods. Motor-driven machines for collecting and for unloading had to be devised and constructed. Tests of a variety of tractors were conducted for the purpose of securing machines which would meet the requirements of the special service and which could be economically operated.

A tractor with power derived from an electric generator actuated by a gasoline engine and known as a gasoline electric, was finally adopted. In making this selection initial cost, operating expenses and maintenance were considered. The tests made demonstrated that gasoline-electric tractors could be maintained and operated at an annual cost of \$5,815.46 each, as against \$6,339.74 for the lowest cost gasoline system or \$7,296.76 for the electric-storage batteries.

The gasoline electric machine has an additional advantage in that it is capable of generating electric power in excess of its own needs, thus affording power to operate motor-driven auxiliaries, such as flushing pumps, pick-up machines and brooms.

The designing division of the Department is now working upon plans for the construction of trailers embodying these combinations. When these trailers are ready for the service the use of horses for drawing Department apparatus in the district will be fully discontinued. At present horse-drawn sprinkling and sweeping machines are used.

The trailers at present in use are of the "semi-trailer" type. This style of trailer has but two wheels, which are at the rear of the vehicle. The forward end of the trailer is mounted upon a fifth-wheel mechanism at the rear of the tractor. The trailers were designed by the Engineering Staff of the Department with a view to making joint collection, of ashes, garbage and rubbish, but keeping the three classes of material separated. Thus, one collection trip does the work that requires three trips under the old method. An analysis of the records of collections on the many routes in the district and due consideration of seasonal conditions, demonstrated that the proportion of garbage to ashes varied from 1 to 2 in 8. Hence the trailer adopted is provided with eight (8) ash and garbage compartments, arranged in two

longitudinal rows of four on each side of the trailer. Each of the eight (8) compartments has a capacity of 1.3 cubic yards. There are two (2) rubbish containers, each resting upon four of the ash and garbage containers and serving as covers to prevent the escape of dust when ashes are being loaded and transported. The rubbish containers have V-shaped bottoms and side doors. For the admission of garbage or ashes the pressure of the cans opens the side door, which automatically closes when the can is withdrawn. A thoroughly satisfactory can has not yet been obtained. A great many different patterns have been tested, but none has been found to meet all the requirements. The work is now being done with the best can available, and the Engineering Division is studying the subject and conducting tests with a view to obtaining a can which may be uniformly adopted as a receptacle for ashes and garbage.

Unloading of the trailers requires the services of specially designed machinery. Four (4) electric locomotive cranes have been installed on the pier at the foot of East 19th Street and East River. The electric locomotives receive their power through a contact rail. The cranes lift the rubbish containers from the trailers, dump their contents upon the rubbish scows and place the empty containers upon the dock. The tractor-trailer then travels to the ash and garbage scows, when the lower compartments are taken up by another crane, emptied and returned to their places on the trailer. The tractor-trailer then returns for its rubbish containers which are replaced by the first crane, and everything is in readiness for another collecting tour. The entire operation described occupies, on an average, twelve minutes.

District Building—A two-story building for the use of the district is being erected and fitted up on the pier at the East River, foot of 19th Street. This building is 58 feet in width and 120 feet in length. A portion of the first floor is used as a passage way to and from the scows. On this floor there is also a garage, an erecting shop, dump inspector's office and a storage space. The second floor contains the district headquarters, machine shop, store room, employee's locker room, toilet room and shower baths and is fitted throughout with the most modern plumbing fixtures.

Snow Plowing—During the present winter the Department's tractors have justified the claim that they could be made to render valuable and economical service in snow work. In cleaning roadways of snow after the two December storms the tractors, fitted with specially designed plows, did exceptionally effective work, piling the snow upon the sides or in the center of the street as desired. Not more than one-half an hour's time is required to transform the large waste collecting apparatus into a formidable snow-piling machine.

Owing to delays in deliveries of equipment it was impossible to begin service under the new system in the Model District until September, 1915.

On September 8th, the Department began motor collection in about one-fourth of the District. The service was extended as rapidly as equipment



A TRAILER ON COLLECTING TOUR. ASHES, GARBAGE AND RUBBISH TAKEN ON THE SAME TRIP, BUT LOADED INTO SEPARATE COMPARTMENTS.

was delivered and men could be trained in its use. Practically every feature of the new system was strange to the men and it has been no small task to train a force both of officers and men, to properly operate the various kinds of apparatus. This special training must be continued until there are enough men in the Department familiar with the operations to insure a sufficient force to cover the district at all times. Further than that, the Model District should be a training school for the whole force, which may some time in the future be called upon to work with modern equipment in other, possibly all, of the districts under the control of the Department.

Equipment—As has been stated there was considerable delay in securing delivery of apparatus and other equipment for service in the Model District. Table No. 16 shows the number of pieces and character of equipment at present installed in the District, dates when contracted for and time of delivery.

TABLE NO. 16.
Model District Equipment.

| No. | Name of Equipment. | Date Contracted for | Date of Delivery |
|-----|---|---------------------|-------------------|
| 12 | Gasoline Electric Tractor..... | March 23rd. | Final—Aug. 1st. |
| 1 | Sample Trailer..... | | June 8th. |
| 11 | Trailers..... | June 4th. | Final—Aug. 21st. |
| 10 | Sample Ash and Garbage Containers..... | | July 10th. |
| 120 | Ash and Garbage Containers..... | July 15th. | Final—Sept. 1st. |
| 2 | Sample Combined Dust and Rubbish Tops..... | | Aug. 21st. |
| 28 | Combination Dust and Rubbish Tops..... | Aug. 17th. | Final—Sept. 30th. |
| 4 | Electric Locomotive Cranes..... | May 19th. | Sept. 4th. |
| | Office Building and Garage..... | Sept. 16th. | Not completed. |
| | Crane Tracks and Electrical Work, incidental thereto..... | June 29th. | Aug. 25th, 1916. |

Cost of Model District Equipment.

Following is an itemized list of the equipment installed in the Model District up to the present and the cost thereof:

| | | | |
|------------|--|-------------------|--------------|
| 12 | Gas Electric Tractors..... | @ \$4,166.00..... | \$49,992.00 |
| 1 | Sample Trailer..... | @ 995.00..... | 995.00 |
| 11 | Trailers..... | @ 810.00..... | 8,910.00 |
| 10 | Sample Ash and Garbage Containers..... | @ 55.00..... | 550.00 |
| 120 | Ash and Garbage Containers..... | @ 27.25..... | 3,270.00 |
| 2 | Sample Combined Dust and Rubbish Tops... | @ 150.00..... | 300.00 |
| 28 | Combination Dust and Rubbish Tops..... | @ 69.00..... | 1,932.00 |
| 4 | Electric Locomotive Cranes..... | @ 3,000.00..... | 12,000.00 |
| | Office Building and Garage..... | | 29,611.00 |
| | Track Work, etc..... | | 4,562.00 |
| Total..... | | | \$112,122.00 |

SNOW REMOVAL

The results of snow removal work during the year fully justifies the new methods adopted November 10, 1914, which were given their initial trial at the time of the first working snowstorm thereafter, on February 1, 1915. The new plans almost completely revolutionized the methods of handling the City's snow problem. The employment of emergency workers, called "Snow Fighters"; the use of a large number of motor-driven snow plows owned by the City and propelled either by Department tractors or motor trucks privately owned, replaced the slower and more expensive contract system over a large part of the area scheduled for snow removal.

Equally as important as these additions to the forces employed in snow work was the adoption of a programme of early attack. Instead of waiting until the cessation of a storm before beginning work, as had been the custom under former administrations, snow plows and emergency snow fighters were called out as soon as the Commissioner became convinced that the fall of snow would be of such extent as to require removal by the Department. Hence the City's streets were cleared much more rapidly than was possible under the old methods; in reality interference with traffic because of snow was very slight and complaints from merchants and others were reduced to a minimum.

The great saving to the taxpayers by the installation of the new methods is set forth in the accompanying detailed statements and tables.

It was necessary to start working on five storms, with a combined fall of 30.5 inches, and the total cost of snow work for the winter was \$951,003.00. If all the snow in 1915 had been handled by contractors' trucking forces alone, the year's work at the lowest previous contract rate (\$0.367 per cubic yard in 1907-1908) would have cost \$2,191,836.00. At the 1914-1915 trucking rate the cost would have amounted to \$3,314,630.00. Thus the saving to the City on the above basis aggregated from \$1,240,000.00 to \$2,400,000.00.

Physical Conditions.

The physical elements of the snow problem, insofar as the area of streets scheduled for snow work was concerned, are shown in the accompanying tables as finally adopted after modifications resulting from additional work following the submission of report dated November 10, 1914.

Snow Organizations.

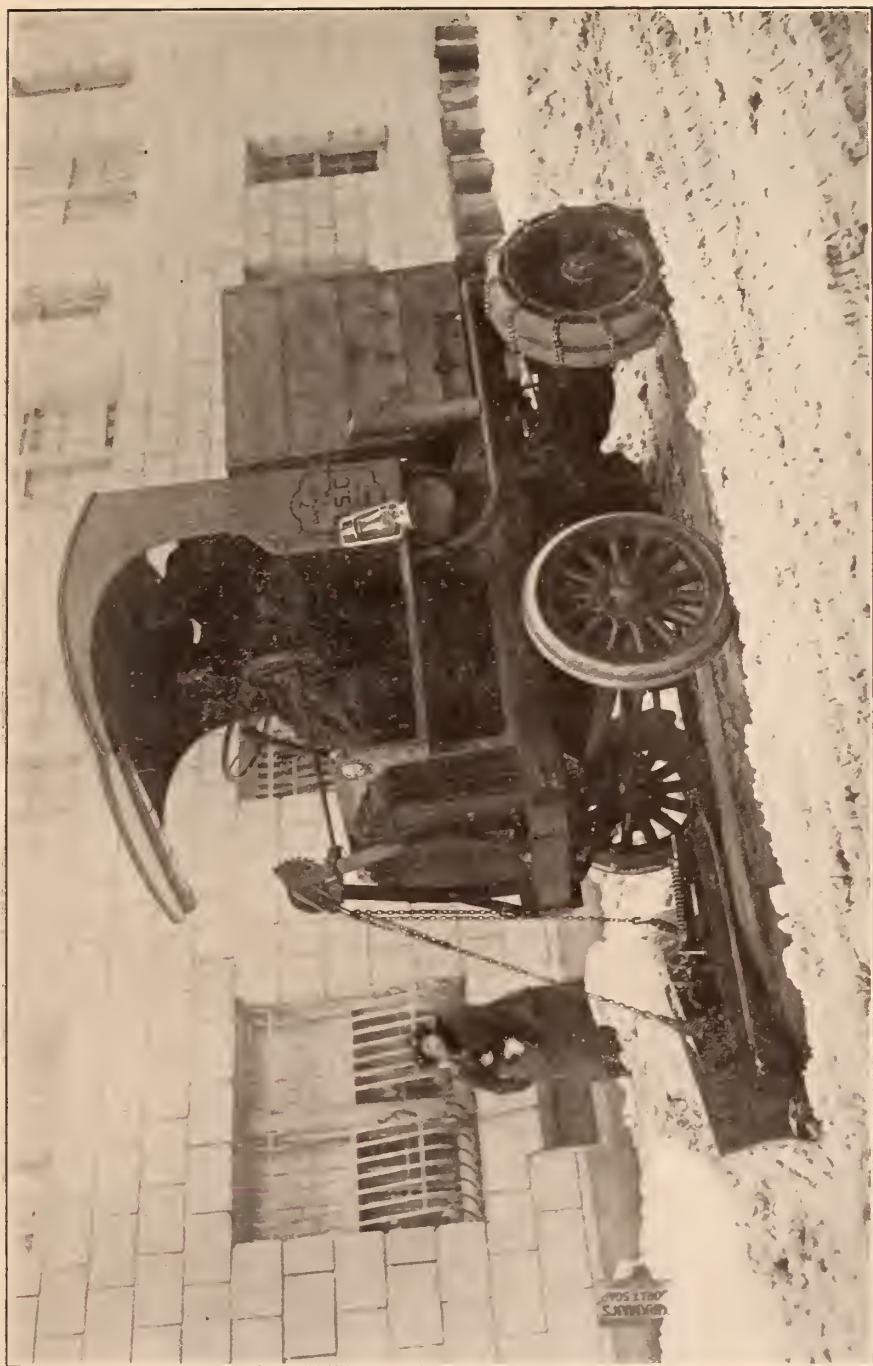
Three distinct organizations, known as (1) Snow Fighting Force, (2) Snow Removal Force, and (3) the Street Railway Force, were engaged in snow work.



DUMPING RUBBISH ON SCOW AT EAST 19TH STREET, SHOWING OPERATION OF ONE OF THE LOCOMOTIVE CRANES.



A SQUAD OF EMERGENCY WORKMEN PUSHING SNOW INTO SEWER MANHOLES WITH PAN SCRAPERS.



A DEPARTMENT SNOW PLOW, DRIVEN BY "MODEL DISTRICT" TRACTOR, PILING SNOW ON SIDE OF ROADWAY.

TABLE NO. 17.

Total Area and Mileage of Streets.

| Borough | Street Area | Length |
|----------------|-------------|--------|
| | Sq. Yds. | Miles |
| Manhattan..... | 15,905,824 | 452 |
| The Bronx..... | 3,839,044 | 109 |
| Brooklyn..... | 12,862,213 | 366 |
| Totals..... | 32,607,081 | 927 |

TABLE NO. 18.

Schedule for Snow Fighting Force.

| Borough | Street Area | Length |
|----------------|-------------|--------|
| | Sq. Yds. | Miles |
| Manhattan..... | 12,830,851 | 365 |
| The Bronx..... | 3,154,605 | 90 |
| Brooklyn..... | 10,213,861 | 290 |
| Totals..... | 26,199,317 | 745 |

TABLE NO. 19.

Contract Schedule, Mandatory Streets.

| Borough | Street Area | Length |
|----------------|-------------|--------|
| | Sq. Yds. | Miles |
| Manhattan..... | 1,839,382 | 52 |
| The Bronx..... | 250,227 | 7 |
| Brooklyn..... | 1,214,400 | 35 |
| Totals..... | 3,304,009 | 94 |

TABLE NO. 20.

Street Railway Schedule.

| Borough | Street Area Sq. Yds. | Length Miles |
|----------------|-------------------------|-----------------|
| Manhattan..... | 1,235,591 | 35 |
| The Bronx..... | 434,212 | 12 |
| Brooklyn..... | 1,433,952 | 41 |
| Totals..... | 3,103,755 | 88 |

Table No. 21 which follows provides information regarding the total snowfall during 1915.

TABLE NO. 21.

Depth and Weight of Snow.

| Date | Depth Inches | Density Per Cent. | Weight Per Cubic Yd. |
|-------------------------|-----------------|----------------------|----------------------------|
| February 2 and 3..... | 4.5 | 50 | 838.75 |
| March 6 and 7..... | 7.7 | 14 | 134.75 |
| April 3 and 4..... | 10.2 | 11 | 184.50 |
| December 13 and 14..... | 6.0 | 35 | 587.125 |
| December 26..... | 2.1 | 18 | 302. |
| Total..... | 30.5 | .. | ..... |

The Snow Fighting Force.

About 40,000 emergency laborers were registered for the snow fighting force in November and December, 1914. Notification cards were made out for the laborers and sorted according to Police precincts. Cards were likewise prepared for all regular employees of the Street Cleaning Department, and for other city employees drafted for snow work. All cards were sent to the police stations in the precincts in which the men lived, and were sorted by patrolmen's posts for distribution when the Police Department was notified that snow work was to start.

The plan of calling the men to work was generally successful and the Police Department deserves credit for rapid and effective work in calling out the snow fighters.



DUMPING SNOW FROM CART INTO SEWER MANHOLE, THUS MATERIALLY LESSENING LENGTH OF HAUL.

The responsibility for starting snow-fighting work involved the exercise of judgment in determining whether or not a snowstorm warranted action costing approximately \$50,000.00 per shift. Table No. 21 preceding summarizes the working snowstorms occurring during 1915, of which there were five. Practically all of the snowstorms of the year, whether requiring work by the Department or not, were of an uncertain character, so that it was not possible to start snow fighting when the storm began. This condition resulted in some delay in beginning work, but was repaid by the fact that no mistakes were made in starting unnecessary work.

Snow Fighting Versus Snow Removal.

Table No. 22 compares snow fighting with contract snow removal by trucks during the year and shows the advantages in speed and economy of the snow fighting force under the prevailing conditions.

TABLE NO. 22.

Comparison of S. F. versus S. R.—1915.

| | Days | Cu. Yds. | Average Cost | | Cu. Yds. |
|----------------------------|------|-----------|--------------|-------------|-----------------|
| | Work | Removed | Cost | per Cu. Yd. | Removed per Day |
| Contract Snow Removal..... | 27 | 827,187 | \$459,639 | \$0.555 | 30,636 |
| City Snow Fighting..... | 31 | 5,145,120 | 491,364 | 0.095 | 165,971 |
| Total..... | .. | 5,972,307 | \$951,003 | \$0.159 | ..... |

About 86 per cent of the snow-fighting work was finished within fifteen hours after the storm ceased, but disposal of snow piles by sewerage on side streets was continued by emergency laborers for the number of days shown in the table. A shrinkage of 35 per cent to 65 per cent on the original depth of snow was allowed for snow fighting in order to compare the volume of snow disposed of in sewers with truck removal.

The general results from Table No. 22 indicate that snow fighting proceeded at more than five times the speed and at less than one-sixth the unit cost of snow removal, or, stated in another way, the snow fighting force removed five times the amount of snow for practically the same cost as the trucking force. The showing upon this basis would have been still more favorable to snow fighting had the supply of labor been as adequate in December, as it was in the earlier part of the year.

The experience of the winter of 1914-1915 demonstrated the value of motor-driven plows in the work of piling snow. These plows, attached to motor trucks of not less than five (5) tons capacity, are capable of clearing snow from roadways expeditiously, thus speeding the opening lines of traffic through the City's streets. The Department, therefore, made preparations during the summer of 1915, to extend the use of plows, and the equipment was increased to seventy (70) plows, and contracts were made with truck owners to drive them when called upon.



DEPARTMENT PLOWS, ATTACHED TO AUTO TRUCKS, PILING SNOW IN FIFTH AVENUE.

APPENDICES

APPENDIX A.

The Department Force—1915.

| Position | Manhattan. | The Bronx. | Brooklyn. | Total. |
|-------------------------------------|------------|------------|-----------|--------|
| General Superintendent..... | 1 | .... | .... | 1 |
| Asst. General Superintendent..... | 1 | .... | .... | 1 |
| Examining Engineer..... | 1 | .... | .... | 1 |
| Assistant Engineer..... | 1 | .... | .... | 1 |
| Draftsman..... | 1 | .... | .... | 1 |
| Transitman and Computer..... | 1 | .... | .... | 1 |
| Supervisor of Juvenile Leagues..... | 1 | .... | .... | 1 |

Sweeping Division:

| | | | | |
|-------------------------------|-------|------|-----|-------|
| District Superintendents..... | 15 | 4 | 9 | 28 |
| Section Foremen..... | 51 | 12 | 36 | 99 |
| Asst. Foremen, 2nd Grade..... | 86 | 18 | 53 | 157 |
| Regular Sweepers..... | 1,569 | 295 | 860 | 2,724 |
| Extra Sweepers..... | 213 | 47 | 167 | 427 |
| Section Station Keepers..... | 51 | 9 | 33 | 93 |
| Custodians..... | 9 | .... | 1 | 10 |

Driving Division:

| | | | | |
|---------------------------------|-----|------|------|-------|
| Stable Foremen..... | 12 | 3 | 10 | 25 |
| Asst. Stable Foremen..... | 11 | 3 | 9 | 23 |
| Hostlers..... | 93 | 27 | 67 | 187 |
| Regular Drivers..... | 684 | 220 | 599 | 1,503 |
| Drivers (Tractor)..... | 24 | .... | .... | 24 |
| Loaders (Refuse Collector)..... | 30 | .... | .... | 30 |
| Stablemen..... | 102 | 27 | 64 | 193 |
| Extra Hostlers..... | 12 | 2 | 11 | 25 |
| Extra Drivers..... | 517 | 128 | 424 | 1,069 |
| Extra Stablemen..... | 14 | 2 | 18 | 34 |

Final Disposition:

| | | | | |
|------------------------------------|----|------|------|----|
| Supt. of Final Disposition..... | 1 | .... | .... | 1 |
| Asst. Supt. Final Disposition..... | 1 | .... | .... | 1 |
| Dump Inspectors..... | 22 | 5 | 16 | 43 |
| Asst. Dump Inspectors..... | 20 | 3 | 20 | 43 |
| Boardmen..... | 24 | 4 | 8 | 36 |
| Emergency Boardmen..... | 1 | 1 | 1 | 3 |
| Laborers at Riker's Island..... | 1 | .... | .... | 1 |

Medical and Surgical Service:

| | | | | |
|-------------------------|---|------|------|---|
| Medical Examiners..... | 4 | .... | .... | 4 |
| Chief Veterinarian..... | 1 | .... | .... | 1 |
| Veterinarians..... | 6 | .... | .... | 6 |
| Apothecary..... | 1 | .... | .... | 1 |

Clerical Force:

| | | | | |
|--------------------------------------|----|-------|-------|----|
| Chief Clerk..... | 1 | ..... | ..... | 1 |
| Clerks..... | 63 | 2 | 1 | 66 |
| Stenographers and Typewriters..... | 7 | ..... | 1 | 8 |
| Typewriter Copyists..... | 2 | ..... | ..... | 2 |
| Telephone Switchboard Operators..... | 5 | 3 | 3 | 11 |
| Messengers..... | 1 | ..... | 1 | 2 |
| Guard..... | 1 | ..... | ..... | 1 |
| Law Clerk..... | 1 | ..... | ..... | 1 |
| Bookkeeper..... | 1 | ..... | ..... | 1 |

Mechanical Bureau:

| | | | | |
|------------------------------------|-------|-------|-------|-------|
| Master Mechanic..... | 1 | ..... | ..... | 1 |
| Foremen of Mechanics..... | 1 | 1 | 1 | 3 |
| Foremen of Mechanics (Garage)..... | 2 | ..... | ..... | 2 |
| Foreman of Carpenters..... | 1 | ..... | ..... | 1 |
| Foreman of Painters..... | ..... | ..... | ..... | ..... |
| Automobile Enginemmen..... | 2 | 1 | 1 | 4 |
| Stationary Engineman..... | 1 | ..... | ..... | 1 |
| Automobile Machinist..... | 1 | ..... | ..... | 1 |
| Machinists..... | 2 | ..... | ..... | 2 |
| Machinist's Helpers..... | 1 | ..... | 1 | 2 |
| Machinist's Helpers (Auto)..... | 3 | ..... | ..... | 3 |
| Blacksmiths..... | 11 | 2 | 6 | 19 |
| Blacksmith's Helpers..... | 24 | 4 | 13 | 41 |
| Cabinet Maker..... | 1 | ..... | ..... | 1 |
| Carpenters..... | 9 | 1 | 5 | 15 |
| Carriage Upholsterer..... | 1 | ..... | ..... | 1 |
| Cranemen..... | 3 | ..... | ..... | 3 |
| Electrician..... | 1 | ..... | ..... | 1 |
| Harnessmakers..... | 12 | 3 | 8 | 23 |
| Housesmith..... | 1 | ..... | ..... | 1 |
| Mason..... | 1 | ..... | ..... | 1 |
| Mason's Helpers..... | 3 | ..... | ..... | 3 |
| Painters..... | 3 | 1 | 3 | 7 |
| Painters (House)..... | 2 | ..... | ..... | 2 |
| Painters and Letterers..... | 2 | ..... | 1 | 3 |
| Painter and Striper..... | 1 | ..... | ..... | 1 |
| Stripers..... | ..... | 1 | 1 | 2 |
| Plumbers..... | 2 | 1 | 2 | 5 |
| Plumber's Helpers..... | 4 | 1 | 2 | 7 |
| Riggers..... | 11 | ..... | ..... | 11 |
| Sawyer..... | 1 | ..... | ..... | 1 |
| Ship Caulkers..... | 2 | ..... | ..... | 2 |
| Stoker..... | ..... | ..... | 1 | 1 |
| Tinsmiths..... | 4 | 1 | 2 | 7 |
| Wheelwrights..... | 5 | 1 | 3 | 9 |

| | | | | |
|------------|-------|-----|-------|-------|
| Total..... | 3,773 | 833 | 2,462 | 7,068 |
|------------|-------|-----|-------|-------|

APPENDIX B.

The D. S. C. Horse—1915.

During the past year all employees concerned in the care and management of the Department horses, such as the veterinarians, stable foremen, hostlers, stablemen and drivers, showed great zeal in endeavoring to conserve and maintain the working usefulness and efficiency of the stock. The result of this unity is plainly manifested in the statistics showing the tremendous amount of work accomplished, such as the number of loads of ashes, garbage, refuse, sweepings, and snow hauled, combined with the increased number of sweeping machines, sprinklers, and squeegees used, which have exceeded the records of all previous years.

In many districts cart horses hauled the same number of loads per day during the summer as they hauled in the winter; the summer collection necessitated the traveling of twice or thrice the territory to make a load.

When the above points are considered in connection with the fact that a low record was made in the condemnation and sale of unfit horses, and the purchasing of new horses, the results obtained were extremely gratifying:

| Horses Purchased. | Horses Condemned and Sold. |
|-------------------|----------------------------|
| in 1914, 373; | in 1914, 244; |
| in 1915, 219. | in 1915, 87. |

It may be well to point out here that this matter of reducing the number of horses condemned each year will react unpleasantly, in so far that the Department will be credited with a given number of horses which are presumably able to work day in and day out, while their actual working efficiency is greatly reduced due to acquired ailments or defects to which Department of Street Cleaning horses are prone owing to the difficult work they must perform. There are many such ailments and defects which while interfering with steady and regular department work would not effect them in ordinary use. The foregoing reason for caution in the condemnation of horses is coupled with the other and most troublesome one of the constant critical eye which citizens have for city-owned horses. It seems that all the good animals are overlooked or forgotten and the occasional poor one is marked and remembered. To this espionage is due the extreme care or hesitancy displayed by officers in charge of stables in working horses with minor, but, really, nonpainful defects.

Stable officers continue to instruct and quiz their men at regular intervals regarding the care and prevention of sickness in the horses. Especial attention is given to all new drivers and stable employees and they are equipped with copies of the Sick Horse Pamphlet.

During the year a record was kept by each veterinarian showing the number of sick horses treated. This is the first time that such data has been recorded.

Many post-mortem examinations were held upon horses for the purpose of determining the exact cause of sickness which brought about death, and to find if such causes were the result of improper care and management.

The Board of Inquiry continues in all boroughs to hold an investigation into the death of each horse.

Shoeing and Feeding.

During the year the horses have been better shod than at any time in the history of the Department. Each and every horse working received a new shoe on each foot within the calendar month, and there were many horses reshod within the month without additional cost to the Department. The shoeing contract stipulates that during the slippery period of snow and ice, all horses must be kept rough shod. Many anti-slipping devices have been tried out, but none have appeared to possess any practical merit.

The shoeing that gives the best satisfaction during snow time consists of pads on the front feet with the tip having a small toe calk, combined with a pair of rough-shod shoes on the hind feet.

The use of rubber pads on the Department horses has a very important bearing upon their working power. City horses, owing to the hard, dry and hot roads, are very prone to serious ailments of the hoof and limb; the steady constant concussion upon such roads is bound to bring disastrous results, and in order to overcome such drawbacks, there is nothing to equal rubber pads. The front feet sustain two-thirds of the body weight, therefore the value of pads can readily be appreciated.

There are many horses whose usefulness would be greatly prolonged if shod with pads on the front feet. Pads not only relieve concussion, but have the same effect upon all acquired foot ailments, correct defects of hoof, prevent slipping, and are also a great factor in the prevention of injuries to the hoofs from nails, glass and other foreign bodies.

Regarding the value of some protective covering for the bottom of the horse's hoof, too much cannot be said. Emphasis must be placed upon the economic value of such protection for Department horses, which are compelled during all sorts of weather to travel along the curbs in collecting refuse, over piles of sweepings and snow in loading, and in many districts are driven into land dumps when unloading; consequently they are exposed to all sorts of sharp foreign objects that are to be found in such places. Rubber pads,

leather soles or hoof protectors will help to prevent serious injuries to hoofs, and in many instances will afford complete protection by deflecting the sharp object. The hoof must be packed with tar and oakum when pads and leather soles are applied.

In connection with feeding it may be well to point out that alfalfa molasses feed has proven to be very beneficial to those horses to which it has been fed. It is therefore desirable to supply each stable with alfalfa sweet feed which is to be fed only to the stock whose condition would warrant its use.

The daily allowance of forage varies in the different stables, depending upon the severity of the work in the districts in which they are located.

General Care of Horses.

At the beginning of the past winter a full supply of woolen blankets was distributed to all the stables and instructions were issued to the officers concerning their use and care.

First-aid veterinary outfits and watering tubs are to be found at all the dumps. In many districts carts are equipped with watering pails.

The driving, watering, feeding and grooming of horses is governed by rules laid out concerning that branch of Department work, and strict discipline is maintained in their enforcement.

Regarding the general welfare of horses and equipment it may be well to submit the following recommendations for consideration:

Veterinarians' Recommendations.

1. An ample complement of horses in each stable is essential to the health and working efficiency of the stock.

2. Rubber pads and leather soles should always be on hand.

3. Harness of a high grade is necessary, particular attention being given to the hames and chain attachment, with a good stock of proper-sized collars.

4. Curled hair of a high grade must always be kept in stock in order that collars can be repaired and adjusted properly; likewise a plentiful supply of ticking for lining purposes.

5. Stable blankets will contribute to the comfort of the horse in well-ventilated stables during the winter time.

6. Alfalfa sweet feed should be supplied to all stables for feeding in special cases.

Recapitulation of Horse Statistics.

The following is a recapitulation of horses purchased, transferred, and sold, or which died up to December 31, 1915:

| | Manhattan. | The Bronx. | Brooklyn. |
|---------------------------------------|------------|------------|-----------|
| On Hand, January 1, 1915..... | 1,310 | 321 | 941 |
| Purchased during year..... | 6 | 74 | 139 |
| Received from Manhattan..... | .. | .. | .. |
| Received from The Bronx..... | 26 | .. | .. |
| Received from Brooklyn..... | .. | 12 | .. |
| Received from Dept. of Charities..... | 1 | .. | .. |
| Born..... | 1 | .. | .. |
| Total..... | 1,344 | 407 | 1,083 |

Died, Sold and Transferred.

| | Manhattan. | The Bronx. | Brooklyn. |
|---|------------|------------|-----------|
| Died during year..... | 88 | 29 | 101 |
| Sold during year..... | 55 | 13 | 19 |
| Transferred to Manhattan..... | .. | 26 | .. |
| Transferred to The Bronx..... | .. | .. | 12 |
| Transferred to Brooklyn..... | 2 | .. | .. |
| Transferred to Dept. of Health..... | 10 | 5 | .. |
| Transferred to Dept. of Correction..... | 2 | .. | .. |
| Transferred to Dept. of Charities..... | 1 | .. | .. |
| On Hand, January 1, 1916..... | 1,186 | 334 | 951 |

APPENDIX C.

Collection of Material, by Cartloads, During Year 1915.

BOROUGH OF MANHATTAN

| Months | Department Carts | | | | Permit Carts | | | | Hired Carts | | | | Grand Total | | | |
|----------------|------------------|----------|----------|-----------|--------------|---------|---------|----------|-------------|---------|---------|-------|-------------|----------|----------|------------|
| | Ashes | Garbage | Rubbish | Total | Ashes | Garbage | Rubbish | Total | Ashes | Garbage | Rubbish | Total | Ashes | Garbage | Rubbish | Total |
| January..... | 129,148 | 14,003½ | 15,905 | 159,146½ | 59,037 | 482¾ | 2,982½ | 62,502¼ | .... | .... | .... | .... | 188,185 | 14,576¼ | 18,887½ | 221,648¾ |
| February..... | 119,599½ | 12,715 | 13,980½ | 146,295 | 53,942½ | 505¾ | 2,716½ | 57,164¾ | .... | .... | .... | .... | 173,542 | 13,220¾ | 16,697 | 203,459¾ |
| March..... | 133,610 | 14,827¾ | 17,563½ | 166,001¼ | 59,094 | 606½ | 3,260 | 62,960½ | .... | .... | .... | .... | 192,704 | 15,434½ | 20,823½ | 228,961¾ |
| April..... | 102,330½ | 16,203½ | 18,378 | 136,912 | 51,312½ | 627 | 3,136½ | 55,076 | .... | .... | .... | .... | 153,643 | 16,830½ | 21,514½ | 191,988 |
| May..... | 84,054 | 18,800 | 21,405 | 124,259 | 44,058½ | 746½ | 3,343½ | 48,148½ | .... | .... | .... | .... | 128,112½ | 19,546½ | 24,748½ | 172,407½ |
| June..... | 76,124 | 19,684½ | 21,842 | 117,650¼ | 39,301 | 928½ | 3,382 | 43,611½ | .... | .... | .... | .... | 115,425 | 20,612¾ | 25,224 | 161,261¾ |
| July..... | 73,007 | 20,257 | 22,890½ | 116,154½ | 36,100½ | 991¼ | 3,393½ | 40,485¼ | .... | .... | .... | .... | 109,107½ | 21,248¾ | 26,284 | 156,639¾ |
| August..... | 70,594 | 20,154 | 21,265 | 112,013 | 36,695½ | 921¾ | 3,284 | 40,901¼ | .... | .... | .... | .... | 107,289½ | 21,075¾ | 24,549 | 152,914¼ |
| September..... | 72,530½ | 19,321¼ | 20,755½ | 112,607¼ | 36,293 | 800¼ | 3,528 | 40,621¼ | .... | .... | .... | .... | 108,823½ | 20,121½ | 24,283½ | 153,228½ |
| October..... | 85,511 | 18,207½ | 21,445½ | 125,164 | 44,587 | 768½ | 4,047 | 49,402½ | .... | .... | .... | .... | 130,098 | 18,976 | 25,492½ | 174,566½ |
| November..... | 107,402 | 16,538 | 20,467½ | 144,407½ | 52,032 | 862 | 3,920 | 56,814 | .... | .... | .... | .... | 159,434 | 17,400 | 24,387½ | 201,221½ |
| December..... | 129,180½ | 13,779¾ | 18,585½ | 161,545¾ | 59,847 | 666 | 3,654½ | 64,167½ | 2,835 | .... | .... | .... | 191,862½ | 14,445¾ | 22,240 | 228,548¼ |
| Totals..... | 1,183,091 | 204,581½ | 234,483½ | 1,622,156 | 572,300½ | 8,906¾ | 40,648 | 621,855¼ | 2,835 | .... | .... | .... | 1,758,246½ | 213,488¼ | 275,131½ | 2,246,846¼ |

Collection of Material, by Cartloads, During Year 1915.

BOROUGH OF THE BRONX

| Months | Department Carts | | | | Permit Carts | | | | Hired Carts | | | | Grand Total | | | |
|----------------|------------------|---------|---------|----------|--------------|-------|-------|--------|-------------|-------|---------|-------|-------------|---------|---------|---------|
| | Ashes | | Garbage | | Rubbish | | Total | | Ashes | | Garbage | | Rubbish | | Total | |
| | | | | | | | | | | | | | | | | |
| January..... | 21,675½ | 2,898 | 4,469½ | 29,043 | 72½ | ..... | 72½ | 3,952 | ..... | ..... | ..... | ..... | 25,700 | 4,469½ | 2,898 | 33,067½ |
| February..... | 22,054½ | 2,943 | 4,175½ | 28,723 | 94 | ..... | 94 | 96 | ..... | ..... | ..... | ..... | 22,244½ | 4,175½ | 2,493 | 28,913 |
| March..... | 25,414½ | 3,111½ | 4,691½ | 33,217½ | 135½ | ..... | 135½ | 108 | ..... | ..... | ..... | ..... | 25,658 | 4,691½ | 3,111½ | 33,460½ |
| April..... | 17,418 | 3,403 | 4,979½ | 25,800½ | 68 | ..... | 68 | 104 | ..... | ..... | ..... | ..... | 17,590 | 4,979½ | 3,403 | 25,972½ |
| May..... | 12,459 | 3,991½ | 5,639½ | 22,090 | 58 | ..... | 58 | 104 | ..... | ..... | ..... | ..... | 12,621 | 5,639½ | 3,991½ | 22,252 |
| June..... | 9,741½ | 4,477 | 5,846½ | 20,065½ | 78½ | ..... | 78½ | 104 | ..... | ..... | ..... | ..... | 9,924 | 5,846½ | 4,477 | 20,247½ |
| July..... | 8,964 | 4,926 | 6,262½ | 20,152½ | 99½ | ..... | 99½ | 108 | ..... | ..... | ..... | ..... | 9,171½ | 6,262½ | 4,926 | 20,359½ |
| August..... | 8,335½ | 4,540 | 6,574½ | 19,450½ | 96 | ..... | 96 | 104 | ..... | ..... | ..... | ..... | 8,535½ | 6,574½ | 4,541 | 19,651½ |
| September..... | 8,567 | 4,508½ | 6,426 | 19,501½ | 55½ | ..... | 55½ | 104 | ..... | ..... | ..... | ..... | 8,726½ | 6,426 | 4,508½ | 19,661 |
| October..... | 11,211 | 4,858 | 5,819½ | 21,888½ | 99½ | ..... | 99½ | 104 | ..... | ..... | ..... | ..... | 11,414½ | 5,819½ | 4,858 | 22,092½ |
| November..... | 19,545 | 4,221 | 5,411½ | 29,177½ | 62½ | ..... | 62½ | 104 | ..... | ..... | ..... | ..... | 19,711½ | 5,411½ | 4,221 | 29,344½ |
| December..... | 20,498 | 3,893 | 5,165½ | 29,556½ | 14 | ..... | 14 | 5,972 | ..... | ..... | ..... | ..... | 26,484 | 5,165½ | 3,893 | 35,542½ |
| Totals..... | 185,883½ | 47,320½ | 65,461½ | 298,665½ | 934½ | ..... | 934½ | 10,964 | ..... | ..... | ..... | ..... | 197,781 | 65,461½ | 47,321½ | 310,564 |

Collection of Material, by Cartloads, During Year 1915.

BOROUGH OF BROOKLYN.

| Months | Department Carts | | | Permit Carts | | | Hired Carts | | | Grand Total | | |
|----------------|------------------|----------|---------|--------------|--------|---------|-------------|---------|-------|-------------|----------|------------|
| | Ashes | Garbage | Rubbish | Total | Ashes | Garbage | Rubbish | Total | Ashes | Garbage | Rubbish | Total |
| | | | | | | | | | | | | |
| January..... | 80,843½ | 9,702¾ | 13,920½ | 104,466¾ | 5,206½ | 1 | 229½ | 5,437 | .... | 86,050 | 9,703¾ | 14,150 |
| February..... | 74,380½ | 8,398¾ | 12,232½ | 95,011¾ | 5,554 | ..... | 243 | 5,797 | .... | 79,934½ | 8,398¾ | 12,475½ |
| March..... | 83,826 | 9,767¾ | 15,413½ | 109,007¾ | 7,211½ | ..... | 257 | 7,468½ | .... | 91,037½ | 9,767¾ | 15,670½ |
| April..... | 62,428 | 10,857¾ | 16,224½ | 89,510¾ | 6,615 | 1 | 273 | 6,889 | .... | 69,043 | 10,858¾ | 16,497½ |
| May..... | 47,628½ | 13,378¼ | 18,089 | 79,095¾ | 5,252 | 3 | 274½ | 5,529½ | .... | 52,880½ | 13,381¼ | 18,363½ |
| June..... | 40,937 | 15,151 | 18,402½ | 74,490½ | 5,497½ | 53 | 294 | 5,844½ | .... | 46,434½ | 15,204 | 18,696½ |
| July..... | 38,707½ | 17,282¼ | 18,473 | 74,462¾ | 5,475 | 372 | 247 | 6,094 | .... | 44,182½ | 17,654¼ | 18,720 |
| August..... | 37,467½ | 18,278¾ | 17,377 | 73,123¾ | 5,343½ | 341 | 221½ | 5,906 | .... | 42,811 | 18,619¾ | 17,598½ |
| September..... | 40,457½ | 17,092½ | 18,175 | 75,725 | 5,304½ | 234 | 209½ | 5,748 | .... | 45,762 | 17,326½ | 18,384½ |
| October..... | 49,661 | 14,620½ | 18,767½ | 83,049 | 5,655½ | 273 | 285 | 6,213½ | .... | 55,316½ | 14,893½ | 19,052½ |
| November..... | 64,884 | 12,809½ | 17,606½ | 95,300 | 6,004 | 281 | 248 | 6,533 | .... | 70,888 | 13,090½ | 17,854½ |
| December..... | 83,411 | 10,77¾ | 16,732½ | 110,917½ | 5,623 | 276 | 270½ | 6,169½ | .... | 89,034 | 11,050 | 17,903 |
| Totals..... | 704,632 | 158,113¾ | 201,414 | 1,064,159¾ | 68,742 | 1,835 | 3,052½ | 73,629½ | .... | 773,374 | 159,948¾ | 204,466½ |
| | | | | | | | | | | | | 1,137,789½ |

Recapitulation.

| Borough. | Ashes. | Garbage. | Rubbish. | Total. |
|----------------|------------|----------|----------|------------|
| Manhattan..... | 1,758,226½ | 213,488¼ | 275,131½ | 2,246,846¼ |
| The Bronx..... | 197,781 | 65,461½ | 47,321½ | 310,564 |
| Brooklyn..... | 773,374 | 159,948¾ | 204,466½ | 1,137,789¼ |
| Totals..... | 2,729,381½ | 438,898½ | 526,919½ | 3,695,199½ |

APPENDIX D.—FINANCIAL STATEMENT, 1915.

Appropriations and Expenditures.

| Code No. | Title of Account | Appropriation | Expended | Surplus |
|------------------------------|--|---------------|-------------|---------|
| Personal Service: | | | | |
| Salaries, Regular Employees— | | | | |
| General Administration: | | | | |
| 2324 | Executive..... | \$63,681.36 | \$63,681.36 | ..... |
| 2325 | Audit and Accounts..... | 70,912.67 | 70,912.67 | ..... |
| 2326 | Purchase and Storage of Supplies.... | 11,525.00 | 11,525.00 | ..... |
| 2327 | Medical and Surgical Service..... | 20,144.45 | 20,144.45 | ..... |
| 2328 | Snow Removal and Testing..... | 4,812.00 | 4,812.00 | ..... |
| Borough Administration: | | | | |
| 2329 | Manhattan..... | 99,936.43 | 99,936.43 | ..... |
| 2330 | Brooklyn..... | 77,197.10 | 77,197.10 | ..... |
| 2331 | The Bronx..... | 34,514.00 | 34,514.00 | ..... |
| 2332 | Maintenance of Buildings and Equip- ment..... | 9,900.00 | 9,900.00 | ..... |
| Carting and Stables: | | | | |
| 2333 | Manhattan..... | 43,393.00 | 43,393.00 | ..... |
| 2334 | Brooklyn..... | 32,385.16 | 32,385.16 | ..... |
| 2335 | The Bronx..... | 10,584.00 | 10,584.00 | ..... |
| Final Disposition: | | | | |
| 2336 | Manhattan..... | 41,867.00 | 41,867.00 | ..... |
| 2337 | Brooklyn..... | 36,604.84 | 36,604.84 | ..... |
| 2338 | The Bronx..... | 7,500.00 | 7,500.00 | ..... |

| Code No. | Title of Account | Appropriation | Expended | Surplus |
|------------------------------|----------------------|----------------|----------------|---------|
| Wages, Regular Employees— | | | | |
| General Administration: | | | | |
| 2339 | Executive..... | \$6,667.20 | \$6,667.20 | ..... |
| Borough Administration: | | | | |
| 2340 | Manhattan..... | 69,279.26 | 69,279.26 | ..... |
| 2341 | Brooklyn..... | 43,033.60 | 43,033.60 | ..... |
| 2342 | The Bronx..... | 14,877.67 | 14,877.67 | ..... |
| Maintenance of Buildings and | | | | |
| Equipment: | | | | |
| 2343 | Manhattan..... | 105,090.33 | 105,090.33 | ..... |
| 2344 | Brooklyn..... | 51,610.50 | 51,610.50 | ..... |
| 2345 | The Bronx..... | 17,852.25 | 17,852.25 | ..... |
| Sweeping and Cleaning: | | | | |
| 2346 | Manhattan..... | 1,259,306.52 | 1,259,306.52 | ..... |
| 2347 | Brooklyn..... | 693,916.41 | 693,916.41 | ..... |
| 2348 | The Bronx..... | 236,262.09 | 236,262.09 | ..... |
| Carting and Stables: | | | | |
| 2349 | Manhattan..... | 724,304.97 | 724,304.97 | ..... |
| 2350 | Brooklyn..... | 584,601.61 | 584,601.61 | ..... |
| 2351 | The Bronx..... | 214,788.70 | 214,788.70 | ..... |
| Final Disposition: | | | | |
| 2352 | Manhattan..... | 18,990.32 | 18,990.32 | ..... |
| 2353 | Brooklyn..... | 6,418.94 | 6,418.94 | ..... |
| 2354 | The Bronx..... | 3,200.00 | 3,200.00 | ..... |
| Wages, Temporary Employees— | | | | |
| Sweeping and Cleaning: | | | | |
| 2355 | Manhattan..... | 116,447.05 | 116,447.05 | ..... |
| 2356 | Brooklyn..... | 107,335.68 | 107,335.68 | ..... |
| 2357 | The Bronx..... | 31,556.84 | 31,556.84 | ..... |
| Carting and Stables: | | | | |
| 2358 | Manhattan..... | 192,861.37 | 192,861.37 | ..... |
| 2359 | Brooklyn..... | 158,653.34 | 154,653.34 | ..... |
| 2360 | The Bronx..... | 50,562.99 | 50,562.99 | ..... |
| Final Disposition: | | | | |
| 2361 | Manhattan..... | 1,080.00 | 1,080.00 | ..... |
| 2362 | Vacation..... | 45,000.00 | 45,000.00 | ..... |
| 2363 | Spring Clean Up..... | 2,000.00 | 2,000.00 | ..... |
| Total, Personal Service..... | | \$5,320,654.65 | \$5,320,654.65 | ..... |

Supplies.

| | | | | |
|------|-------------------------------------|------------|------------|-------|
| 2364 | Food Supplies (Meal Money)..... | \$2,522.70 | \$2,522.70 | ..... |
| 2365 | Forage and Veterinary Supplies..... | 485,688.33 | 485,688.33 | ..... |
| 2366 | Fuel Supplies..... | 9,063.39 | 9,063.39 | ..... |
| 2370 | Office Supplies..... | 1,627.77 | 1,627.77 | ..... |
| 2371 | Motor Vehicle Supplies..... | 6,540.32 | 6,540.32 | ..... |
| 2372 | General Plant Supplies..... | 3,951.58 | 3,951.58 | ..... |

| Code No. | Title of Account | Appropriation | Expended | Surplus |
|---|-------------------------------------|---------------|-----------|---------|
| Purchase of Equipment: | | | | |
| 2373 | Office Equipment..... | 2,965.38 | 2,965.38 | ..... |
| 2374 | Live Stock..... | 70,122.50 | 70,122.50 | ..... |
| 2375 | Motorless Vehicles and Equipment... | 69,755.63 | 69,755.63 | ..... |
| Motor Vehicles and Equipment: | | | | |
| 2376 | General Administration..... | 1,024.84 | 1,024.84 | ..... |
| Borough Administration: | | | | |
| 2377 | Manhattan..... | 640.41 | 640.41 | ..... |
| 2378 | Brooklyn..... | 591.59 | 591.59 | ..... |
| 2379 | The Bronx..... | 459.38 | 459.38 | ..... |
| 2380 | Carting and Stables..... | 1,865.75 | 1,865.75 | ..... |
| 2381 | General Plant Equipment..... | 71,619.37 | 71,619.37 | ..... |
| Materials: | | | | |
| 2382 | Building Materials..... | 22,988.83 | 22,988.83 | ..... |
| 2383 | Motor Vehicle Materials..... | 1,612.17 | 1,612.17 | ..... |
| 2384 | General Plant Materials..... | 44,805.83 | 44,805.83 | ..... |
| Contract or Open Order Service. | | | | |
| General Repairs: | | | | |
| 2385 | General Administration..... | 347.15 | 347.15 | ..... |
| Maintenance of Buildings and Equipment: | | | | |
| 2386 | Manhattan..... | 4,666.65 | 4,666.65 | ..... |
| 2387 | Brooklyn..... | 1,886.91 | 1,886.91 | ..... |
| 2388 | The Bronx..... | 1,375.82 | 1,375.82 | ..... |
| Carting and Stables: | | | | |
| 2389 | Manhattan..... | 4,778.10 | 4,778.10 | ..... |
| 2390 | Brooklyn..... | 2,601.93 | 2,601.93 | ..... |
| 2391 | The Bronx..... | 204.90 | 204.90 | ..... |
| 2392 | Final Disposition..... | 1,603.07 | 1,603.07 | ..... |
| Light, Heat and Power—Maintenance of Buildings and Equipment: | | | | |
| 2393 | Manhattan..... | 4,205.24 | 4,205.24 | ..... |
| 2394 | The Bronx..... | 1,261.01 | 1,261.01 | ..... |
| Transportation— | | | | |
| Hire of Horses and Vehicles, with Drivers— | | | | |
| Carting and Stables: | | | | |
| 2395 | Manhattan..... | 179.60 | 179.60 | ..... |
| 2396 | The Bronx..... | 6,438.30 | 6,438.30 | ..... |
| Hire of Horses and Vehicles, without Drivers— | | | | |
| Carting and Stables: | | | | |
| 2397 | Manhattan..... | 450.00 | 450.00 | ..... |
| 2398 | Brooklyn..... | 3,996.00 | 3,996.00 | ..... |
| 2399 | Storage of Motor Vehicles..... | 1,173.66 | 1,173.66 | ..... |
| 2400 | Shoeing and Boarding Horses..... | 50,258.33 | 50,258.33 | ..... |

| Code | | | | |
|------|--|----------------|----------------|---------|
| No. | Title of Account | Appropriation | Expended | Surplus |
| | Car Fare: | | | |
| 2401 | General Administration..... | 534.46 | 534.46 | ..... |
| | Borough Administration: | | | |
| 2402 | Manhattan..... | 663.29 | 663.29 | ..... |
| 2403 | Brooklyn..... | 809.37 | 809.37 | ..... |
| 2404 | The Bronx..... | 375.80 | 375.80 | ..... |
| 2405 | Communication..... | 11,228.44 | 11,228.44 | ..... |
| | General Plant Service: | | | |
| 2407 | Maintenance of Buildings and Equip- ment..... | 188.25 | 188.25 | ..... |
| 2408 | Sweeping and Cleaning..... | 20,075.00 | 20,075.00 | ..... |
| | Final Disposition: | | | |
| 2409 | Manhattan..... | 609,856.73 | 609,856.73 | ..... |
| 2410 | Brooklyn..... | 655,058.43 | 655,058.43 | ..... |
| 2411 | The Bronx..... | 71,697.90 | 71,697.90 | ..... |
| | Snow Removal: | | | |
| 2412 | Manhattan..... | 390,213.06 | 390,213.06 | ..... |
| 2413 | Brooklyn..... | 122,287.30 | 122,287.30 | ..... |
| 2414 | The Bronx..... | 21,057.94 | 21,057.94 | ..... |
| 2415 | Contingencies..... | 799.04 | 799.04 | ..... |
| | Personal Service..... | \$5,320,654.65 | \$5,320,654.65 | ..... |
| | Supplies, Equipment, Etc. (Ex- cluding Snow and Ice)..... | 2,254,559.15 | 2,254,559.15 | ..... |
| | | \$7,575,213.80 | \$7,575,213.80 | ..... |
| | Snow and Ice Accounts..... | 533,558.30 | 533,558.30 | ..... |
| | Grand Total..... | \$8,108,772.10 | \$8,108,772.10 | ..... |

SPECIAL REVENUE BONDS.

| Code No. | Purpose of Authorization | Amount | Expended | Balance |
|----------|--|--------------|--------------|-------------|
| RDS 39b | Deficiency in Budget, Item No. 2365—1915..... | \$205,000.00 | \$164,914.41 | \$40,085.59 |
| RDS 40 | Covering Ash and Garbage Carts.. | 14,336.35 | 14,256.08 | 80.27 |
| RDS 40a | *Hose and Sprinkler System for Dumping Boards, Manhattan... | 28,240.00 | ..... | 28,240.00 |
| RDS 40b | *Hose and Sprinkler System for Dumping Boards, The Bronx.... | 3,048.00 | ..... | 3,048.00 |
| RDS 40c | *Hose and Sprinkler System for Dumping Boards, Brooklyn..... | 1,450.00 | ..... | 1,450.00 |

* Work being performed in 1916.

CORPORATE STOCK.

| Code No. | Purpose of Authorization | Amount |
|----------|--|-------------|
| CDS 2g | Construction of Covered Dump at Foot of West 77th Street, Manhattan..... | \$21,859.31 |
| CDS 2h | Enlarging and Covering Dump at Foot of East 72nd Street, Manhattan..... | 17,690.96 |
| CDS 15 | Construction and Equipment of Model Street Cleaning District. | 86,130.29 |

SPECIAL AND TRUST FUNDS.

| | | |
|-------|--|------------|
| S 565 | Special Deposit Emergency Operation, account of Contract of Harold B. Christenson, Jr..... | \$692.50 |
| SDS 1 | Undistributed Snow Removal Expenditure..... | 418,014.19 |

APPENDIX E.—D. S. C. PENSION FUND.

Employees Pensioned During 1915.

| | Physical Disability | | | | | | | | | Total |
|-------------------------|-------------------------------------|-------|----------|----------------------|-------|----------|-----------------------------|-------|----------|-------|
| | 60 Years of Age 20 Years Service | | | Voluntary Request | | | By Order of Commissioner | | | |
| | Manhattan | Bronx | Brooklyn | Manhattan | Bronx | Brooklyn | Manhattan | Bronx | Brooklyn | |
| | | | | | | | | | | |
| Asst. Gen. Sup't..... | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| Dis. Superintendent.... | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| Section Foreman..... | .. | .. | .. | 3 | .. | .. | .. | .. | .. | 3 |
| Stable Foreman..... | .. | .. | .. | .. | 2 | 1 | .. | .. | .. | 3 |
| Asst. Foreman 2d Grd.. | .. | .. | .. | 2 | .. | .. | 16 | .. | 9 | 27 |
| Dump Inspector..... | 1 | .. | .. | 2 | .. | 1 | 1 | .. | .. | 5 |
| Asst. Dump Inspector.. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 |
| Foreman Mechanics.... | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | 1 |
| Mechanics..... | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | 2 |
| Mechanic's Helper.... | .. | .. | .. | 4 | .. | 1 | .. | .. | .. | 5 |
| Sweeper..... | 1 | .. | .. | 49 | 9 | 18 | 26 | .. | 3 | 106 |
| Custodian of Yards.... | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| Sec. Station Keeper.... | .. | .. | .. | 6 | 1 | 1 | .. | .. | .. | 8 |
| Driver..... | 1 | .. | .. | 2 | .. | .. | .. | .. | .. | 3 |
| Hostler..... | .. | .. | .. | 12 | 1 | 2 | .. | .. | .. | 15 |
| Stableman..... | 1 | .. | .. | 5 | .. | 3 | .. | .. | 1 | 10 |
| Boardman..... | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| Clerk..... | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| Messenger..... | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 |
| | 4 | .. | .. | 92 | 14 | 29 | 43 | .. | 13 | 195 |

| | Years | Mos. | Days |
|---|-------|------|------|
| Average age of employees retired in 1915..... | 58 | 3 | 27 |
| Average length of service of employees retired in 1915..... | 17 | 1 | 0 |

Of the 195 employees retired in 1915—12 died.

RELIEF AND PENSION FUND.

CASH ACCOUNT.

Receipts and Disbursements—January 1, 1915 to December 31, 1915.

Receipts.

| | | |
|-----------|--|---------------------|
| January 1 | Cash on hand..... | \$42,741.90 |
| | Receipts, Privilege of Scow Trimming, Manhattan..... | 37,751.48 |
| | “ Privilege of Scow Trimming, The Bronx..... | 12,000.00 |
| | “ Privilege of Scow Trimming, Brooklyn..... | 60,000.00 |
| | “ Redemption of Incumbrances..... | 3,300.78 |
| | “ Sales of Incumbrances..... | 808.67 |
| | “ Sales of Condemned Property..... | 9,472.11 |
| | “ Sales of Steam Ashes, etc..... | 2,334.53 |
| | “ Donation..... | 1.75 |
| | “ Interest on Securities..... | 43,537.50 |
| | “ Interest on Bank Balances..... | 1,350.90 |
| | “ Unexpended Balance Appropriation, for Salaries and Wages, 1914..... | 90,606.15 |
| | “ 3% Salaries and Wages of Employees..... | 136,035.57 |
| | “ Lost Time, Fines, Suspensions, etc..... | 57,451.73 |
| | “ Refunds from Pension Payment Account..... | 307.62 |
| | | <u>\$497,700.69</u> |

Disbursements.

1915.

| | |
|--|---------------------|
| By Cash, Printing, Stationery, Sundries..... | \$267.20 |
| “ “ Postage for Pension Checks, etc..... | 166.00 |
| “ “ Refunds to City Chamberlain..... | 749.89 |
| “ “ Cash Securities Purchased..... | 189,683.75 |
| “ “ Commission on Securities Purchased..... | 193.75 |
| “ “ Accrued Interest on Securities Purchased..... | 1,928.66 |
| “ “ Pension Payment Rolls Jan.-Dec., inc., 1915..... | 234,549.35 |
| “ “ Payment from Unclaimed Pension Account..... | 25.00 |
| “ “ Balance..... | 70,137.09 |
| | <u>\$497,700.69</u> |
| Cash—Balance Liberty Bank..... | 25,325.91 |
| Cash—Balance Corn Exchange Bank..... | 44,811.18 |
| | <u>\$70,137.90</u> |

RESOURCES.

| | |
|---|----------------|
| Cash in Liberty National Bank..... | \$25,325.91 |
| Cash in Corn Exchange Bank..... | 44,811.18 |
| Securities par value..... | 1,135,000.00 |
| Accrued interest on securities..... | 14,779.19 |
| Due by Comptroller, City of New York, money transmitted to him by D. S. C. as follows: | |
| Privilege of Scow Trimming, Manhattan..... | 3,422.53 |
| Privilege of Scow Trimming, The Bronx..... | 1,000.00 |
| Privilege of Scow Trimming, Brooklyn..... | 5,000.00 |
| Receipts from Redemption of Incumbrances..... | 185.05 |
| Receipts from Sales of Incumbrances..... | 144.73 |
| Receipts from Sales of Steam Ashes..... | 644.16 |
| | <hr/> |
| | \$1,230,312.74 |

LIABILITIES.

| | |
|--------------------------------|----------------|
| Unclaimed Pension Account..... | \$207.55 |
| Balance..... | \$1,230,105.19 |
| | <hr/> |
| | \$1,230,312.74 |

PENSIONERS ON ROLL JANUARY 1, 1915.

By Title of Position When Employed in Department of Street Cleaning.

| | | |
|---|------------|-----|
| General Superintendent..... | \$1,800.00 | 1 |
| Assistant General Superintendent..... | 1,250.00 | 1 |
| Assistant Superintendent Final Disposition..... | 750.00 | 1 |
| District Superintendent..... | 1,800.00 | 1 |
| " " | 1,140.00 | 1 |
| " " | 1,050.00 | 4 |
| Section Foreman..... | 606.00 | 2 |
| " " | 600.00 | 15 |
| Stable Foreman..... | 750.00 | 4 |
| Dump Inspector..... | 600.00 | 9 |
| Assistant Dump Inspector..... | 450.00 | 2 |
| Assistant Foreman, 2d Grade..... | 450.00 | 36 |
| Driver..... | 450.00 | 1 |
| " | 420.00 | 2 |
| " | 400.00 | 7 |
| Hostler..... | 400.00 | 31 |
| Stableman..... | 380.00 | 23 |
| Sweeper..... | 450.00 | 1 |
| " | 390.00 | 298 |
| " | 300.00 | 4 |
| Section Station Keeper..... | 390.00 | 21 |
| Boardman..... | 400.00 | 1 |
| Scowman..... | 4,456.25 | |
| Mechanics..... | 695.00 | 1 |
| " | 625.00 | 3 |
| " | 558.00 | 1 |
| " | 556.00 | 5 |
| " | 521.25 | 2 |
| Mechanic's Helper..... | 418.50 | 1 |
| " " | 417.00 | 6 |
| " " | 416.25 | 1 |
| Foremen of Mechanics..... | 750.00 | 2 |
| Medical Examiners..... | 900.00 | 1 |
| Messenger..... | 600.00 | 1 |
| Clerk..... | 1,125.00 | 1 |

495

PENSIONERS WHO DIED IN 1915.

| Position when in Service | Boroughs of | | | Totals |
|------------------------------|-------------|-------|----------|--------|
| | Manhattan | Bronx | Brooklyn | |
| District Superintendent..... | 1 | 1 | .. | .. |
| Stable Foreman..... | 1 | .. | .. | .. |
| Section Foreman..... | 1 | 1 | .. | .. |
| Dump Inspector..... | .. | .. | 1 | .. |
| Harnessmaker..... | .. | .. | 1 | .. |
| Carpenter..... | 1 | .. | .. | .. |
| Mechanic's Helper..... | 2 | .. | .. | .. |
| Driver..... | .. | .. | 1 | .. |
| Hostler..... | 2 | .. | .. | .. |
| Stableman..... | 1 | .. | 1 | .. |
| Sweeper..... | 14 | 2 | 5 | .. |
| Section Station Keeper..... | 5 | .. | 1 | .. |
| Custodian of Yards..... | 1 | .. | .. | .. |
| Scowman..... | 1 | .. | 1 | .. |
| Total..... | 30 | 4 | 11 | 45 |

Year When the Above Were Pensioned.

| | 1912 | 1913 | 1914 | 1915 | |
|---|------|------|------|------|----|
| Pensioners..... | 5 | 20 | 8 | 12 | 45 |
| Pensions were granted to the widows of..... | 2 | 9 | 1 | 8 | 20 |

| | Length of Service | | | Period for which Pension was Paid | | |
|---------------|-------------------|------|------|-----------------------------------|------|------|
| | Years | Mos. | Days | Years | Mos. | Days |
| Longest..... | 26 | 7 | 15 | 3 | 6 | 2 |
| Shortest..... | 10 | 0 | 1 | .. | .. | 6 |
| Average..... | 17 | 4 | 29 | 1 | 7 | 1 |

WIDOWS AND ORPHANS.

In addition to the former employees enrolled as beneficiaries under the pension fund, there were, on December 31, 1915, 175 widows and 7 guardians of minor children of deceased employees drawing pensions. The greater number of payments to widows are \$200 each, annually; but 17 receive \$300 each per annum and 2 \$70 each. Five of the guardians of minor children receive \$200 each per annum and 2 receive \$130 each.

COMMISSIONERS OF STREET CLEANING.

| | |
|-------------------|--------------------|
| J. S. Coleman* | June 4, 1881 |
| Horace Loomis | January 1, 1890 |
| H. S. Beattie* | April 4, 1890 |
| T. S. Brennan* | September 17, 1891 |
| W. S. Andrews* | July 21, 1893 |
| George E. Waring* | January 15, 1895 |
| James McCartney** | January 1, 1898 |
| P. E. Nagle | February 10, 1900 |
| J. McG. Woodbury* | January 1, 1902 |
| M. Craven | October 22, 1906 |
| W. Bensel | July 8, 1907 |
| F. Crowell* | November 23, 1907 |
| W. H. Edwards | January 1, 1909 |
| J. T. Fetherston | January 1, 1914 |

* Deceased.

** Died while in office.

